

VOLUME ONE

WORK MANAGEMENT MANUAL

SHEETMETAL SHOP VENTILATION COMPONENTS

NASSCO

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WORK MANAGEMENT MANUAL

SHEETMETAL SHOP VENTILATION COMPONENTS

Prepared For

SNAME PANEL SP-8

MarAd Task ES8-13 (Phase III)

Prepared By

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SECTION 1

1.0 SCOPE

1.1 Plant Area. Department.

This Work Management Manual applies to the Sheetmetal Shop, Building 7, Department 011.

1.2 Product and Components

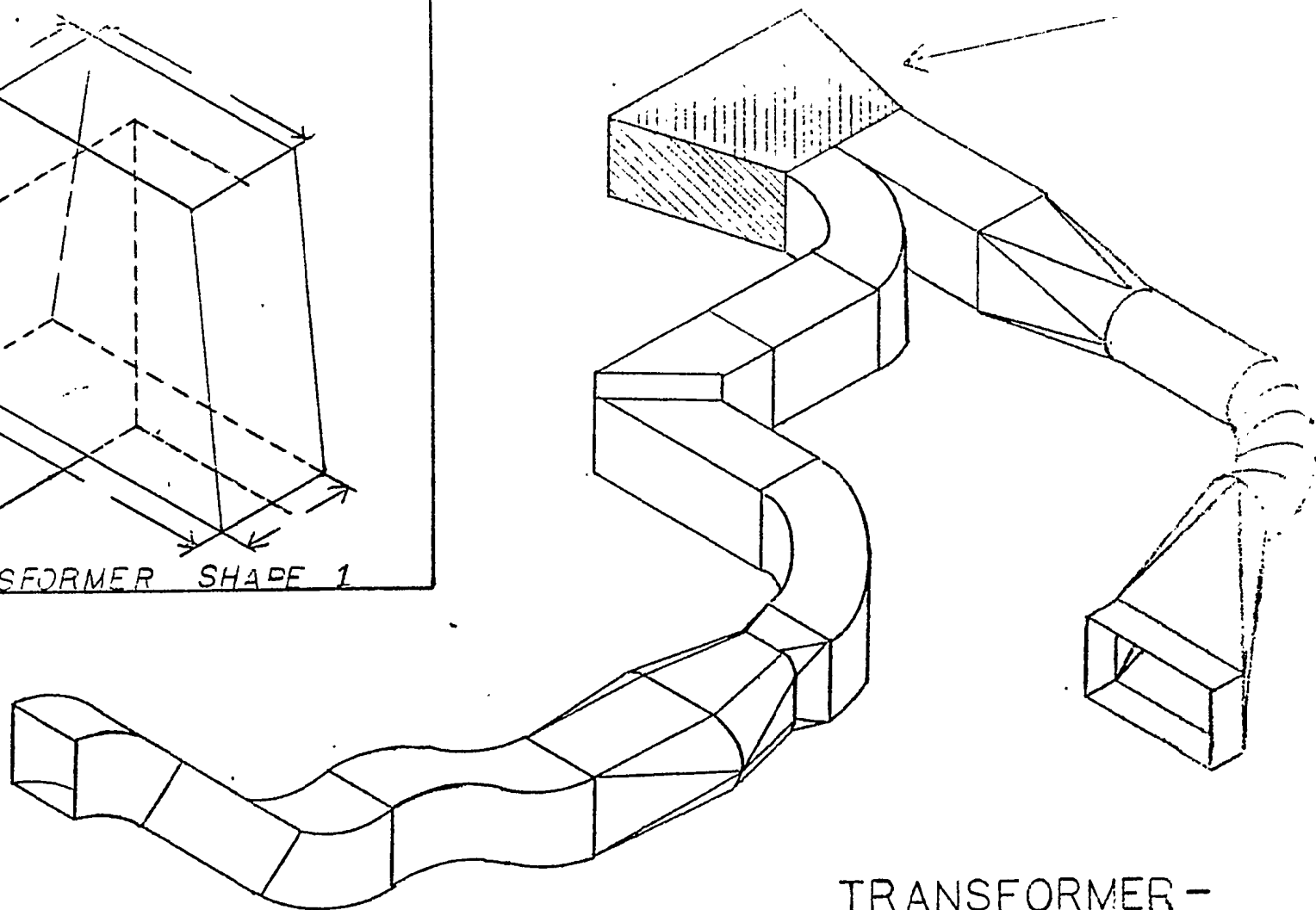
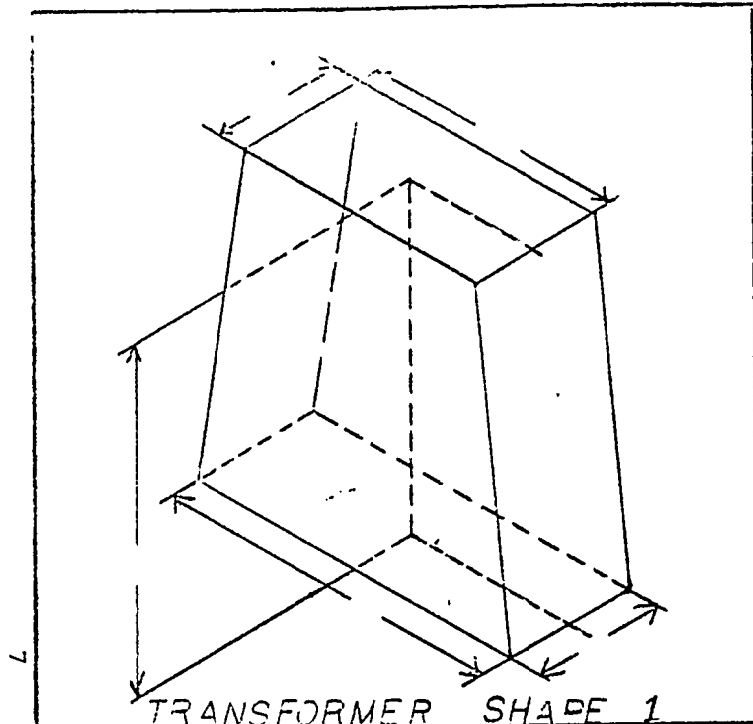
The ventilation parts produced consist of the 13 standard shapes as designated by the Sheetmetal Planning Office. Whether these shapes go to make up an assembly (called a sketch) or a "package" (all the parts in a compartment), the single unit produced in the shop is the object of this manual. Other parts produced in the Sheetmetal Shop such as stainless steel galley equipment, spools, or foundations are specifically excluded as well as installation or erection in the ship.

The standard shapes are listed on the following pages.

For statistical purposes, we analyzed a representative period of sheetmetal shop work and found - (out of more than 2000 shapes) the following breakdown:

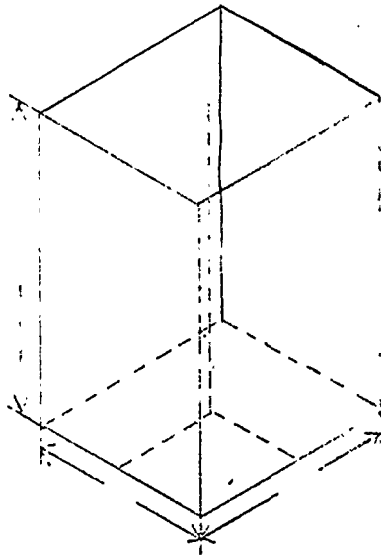
<u>Shape No.</u>	<u>Name</u>	<u>Percent of Total</u>
1	Transformer (rectangular)	12
2	Straight Section	38
3	Square to Round (centered)	8
4	Round Section	2 *
5	Round Elbow (5. gored)	1
6	Square to Round (off center)	2
7	Rectangular Elbow	20
8	Rectangular Elbow with Vane Track	3
9	Rectangular Transition to Radius Corner	<1
10	Flat Oval to Radius Corner	<1
11	Square to Flat Oval	7
12	O-Gee, Rectangular	6
13	Offset, Rectangular	1

* Most round section vent is made from purchased round spiral duct.



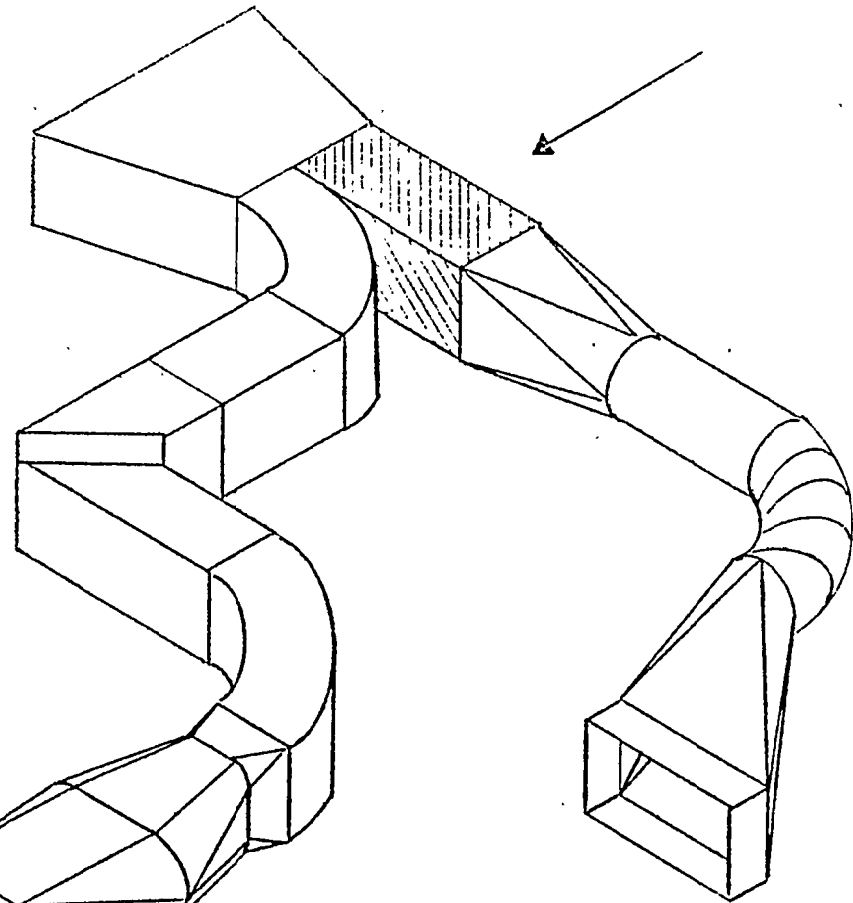
TRANSFORMER -
RECTANGLE TO
RECTANGLE

NASSCO SHAPE 1



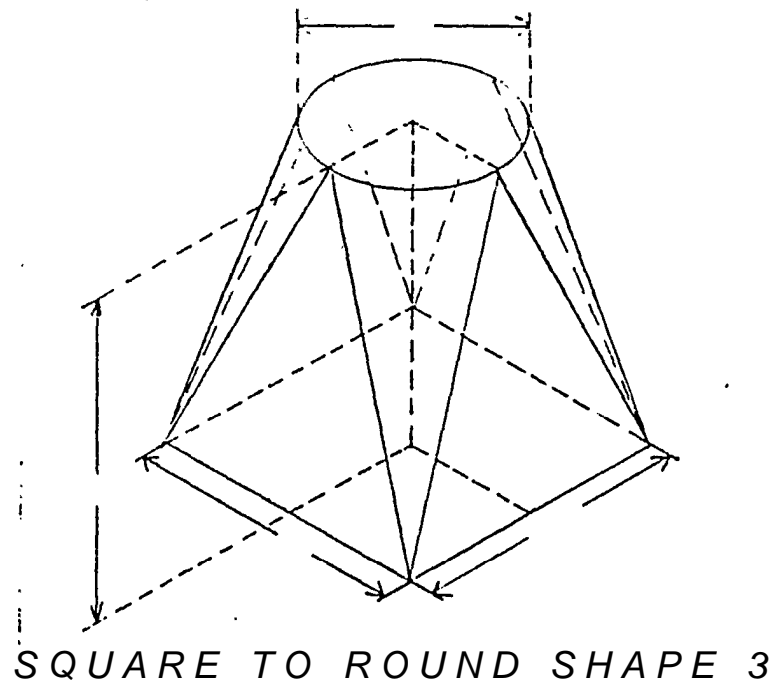
STRAIGHT

SHAPE 2



STRAIGHT RECTANGLE
DUCT

NASSCO. SHAPE 2



**OLD METHOD
befor CNC**

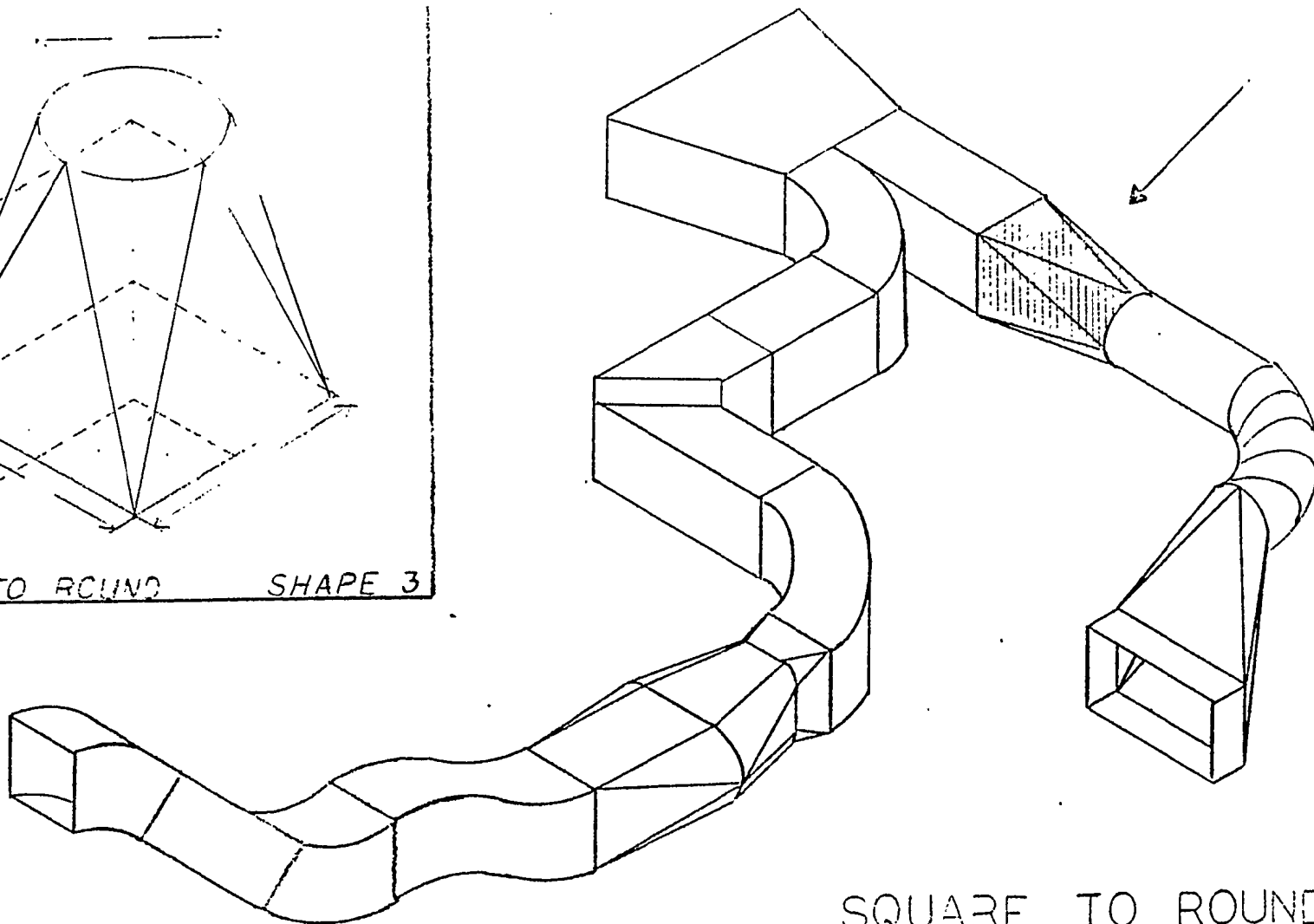
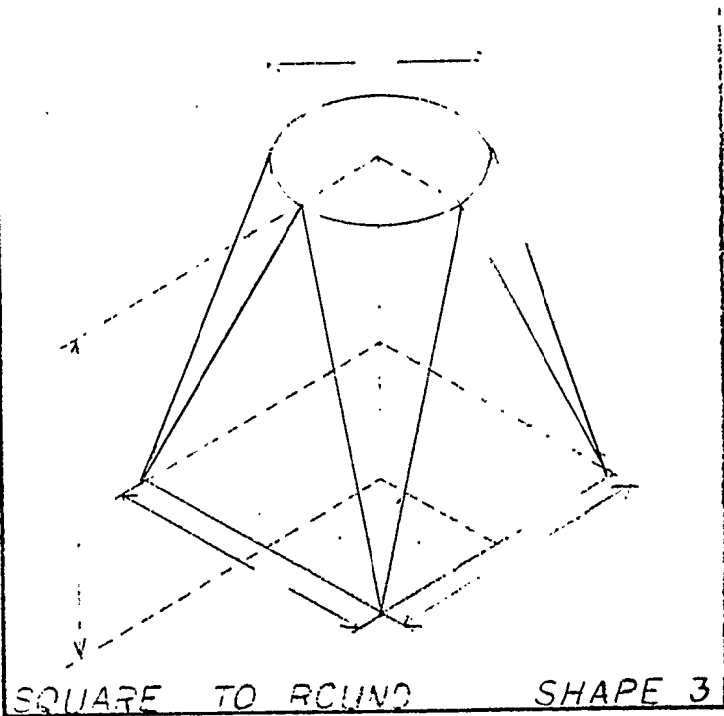
Time required to sketch	30 min
Time required to layout	30 min
Time required to markout	20 min
Time required to cutout	15 min
Total	95 min

**NEW METHOD
with CNC**

CAD/CAM time required to sketch	10 min
Job accomplished by programmer	
Programmer time required	25 min
CNC time required to cutout	6 min
Total	41 min

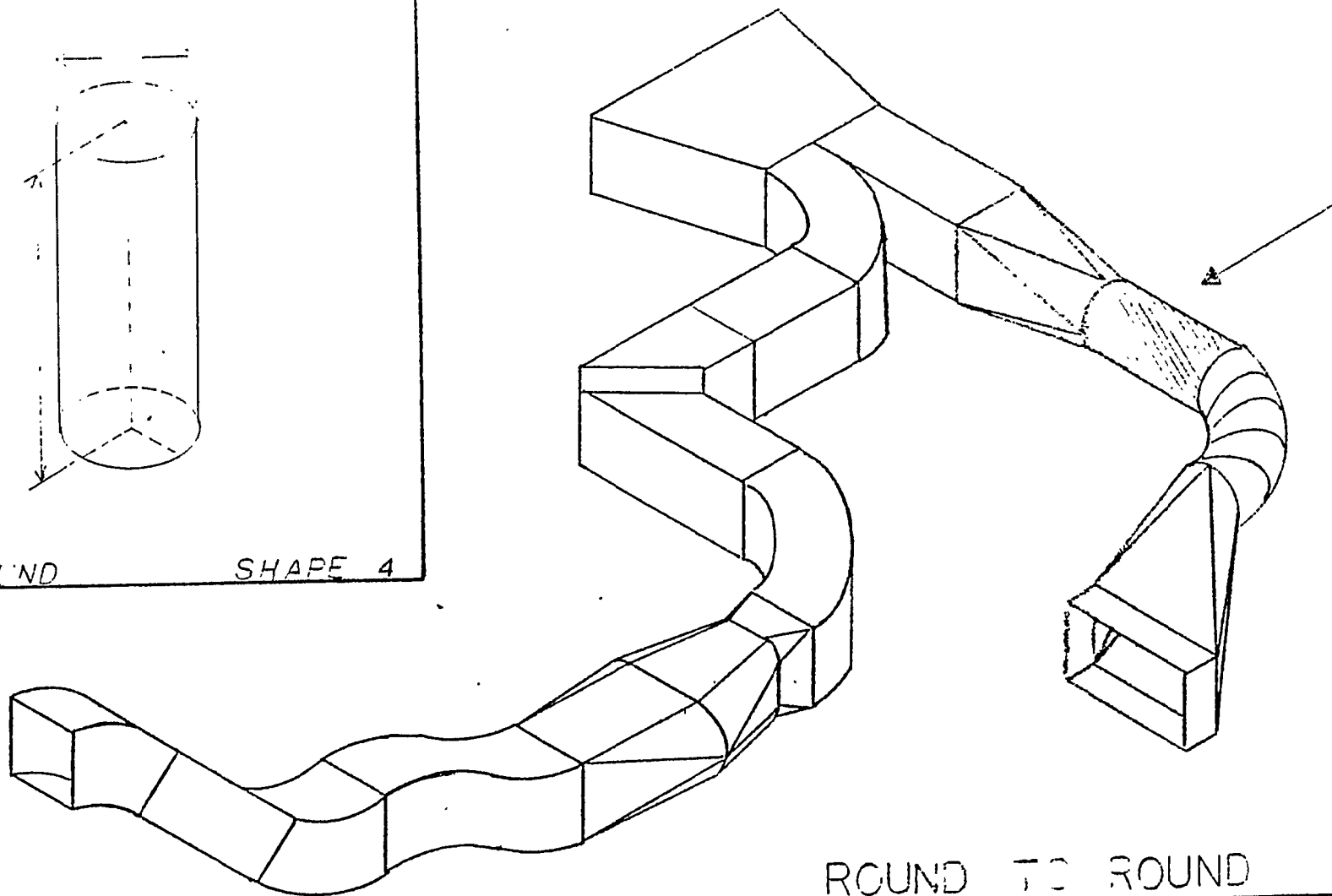
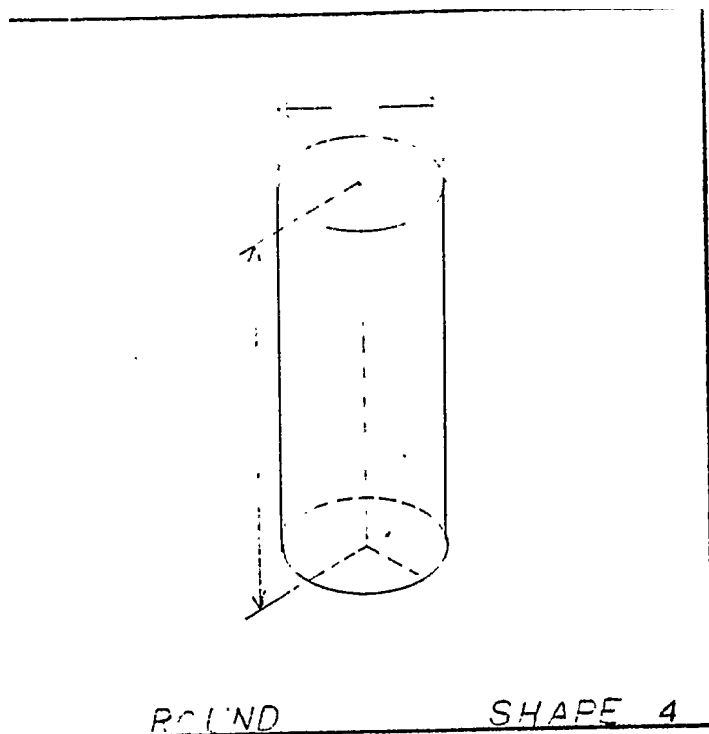
There is an approximate 57% saving in **overall** time in this portion of the construction. The time required to assemble remains close to the same. It will require an extended study to evaluate the effect of more accurate pieces on **possible time saving** during assembly.

The over all saving for this particular piece represents **between 20 30 percent.**



SQUARE TO ROUND
ON CENTER

NASSCO SHAPE 3



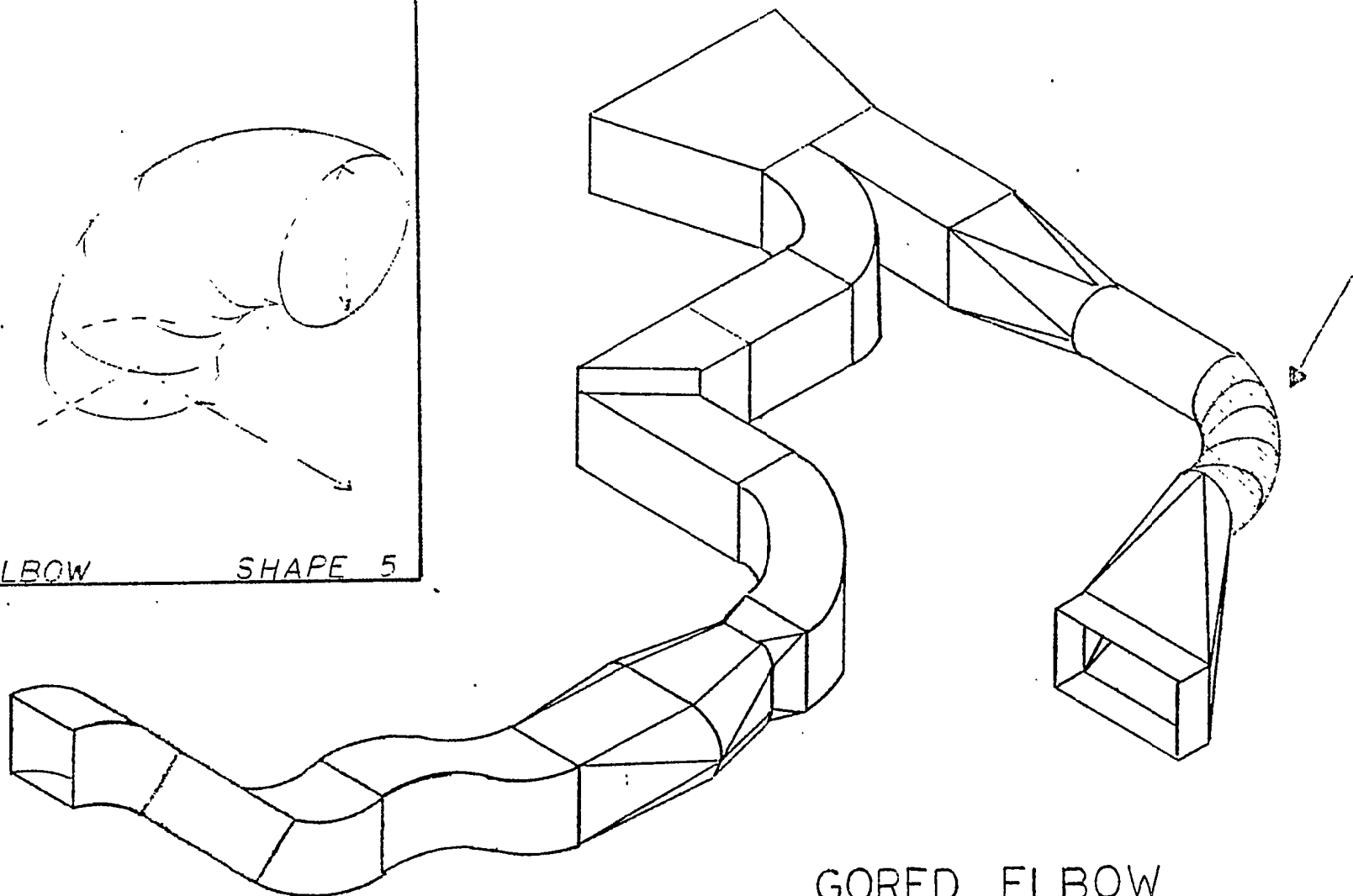
ROUND TO ROUND

SSCO SHAPE 4



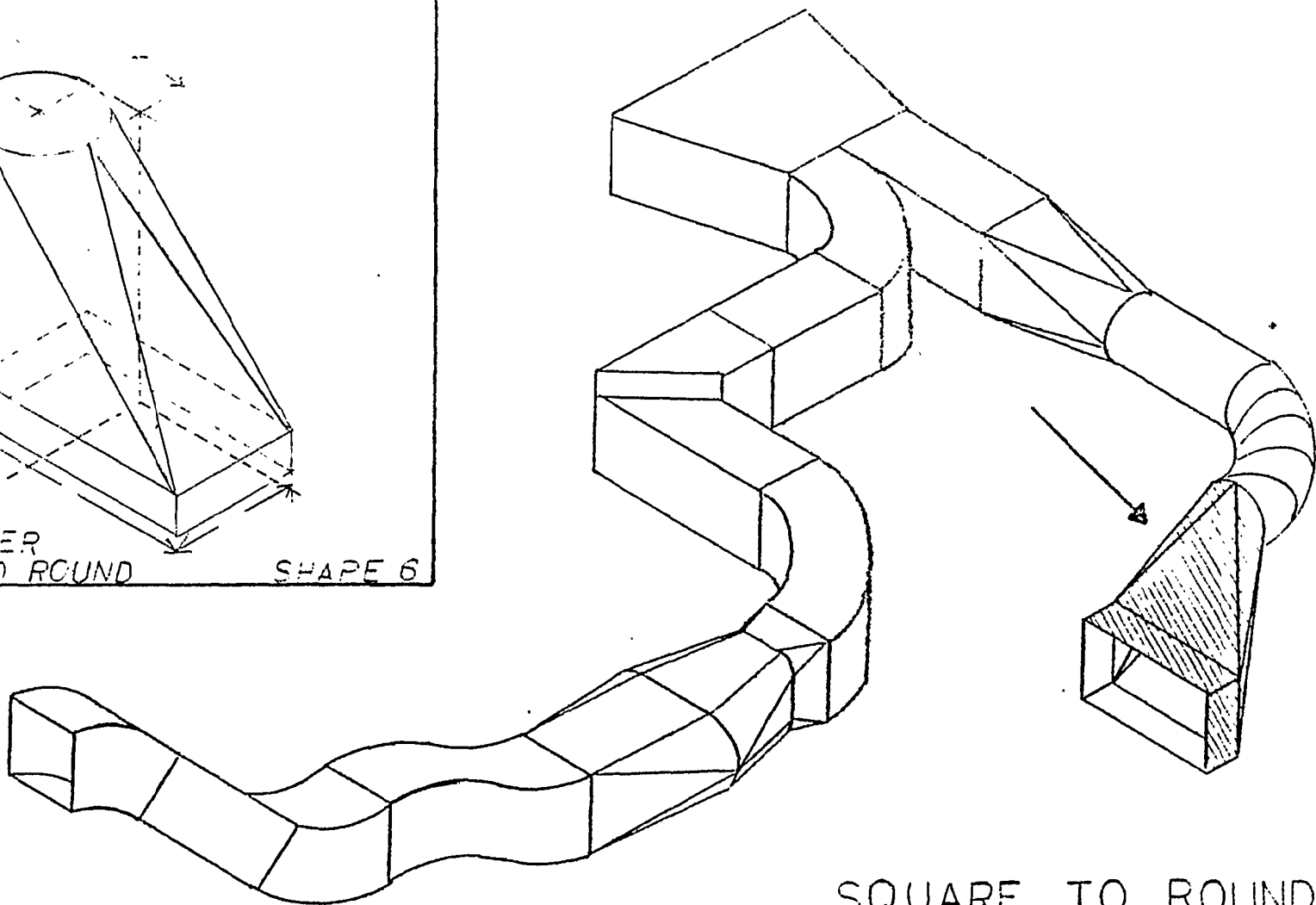
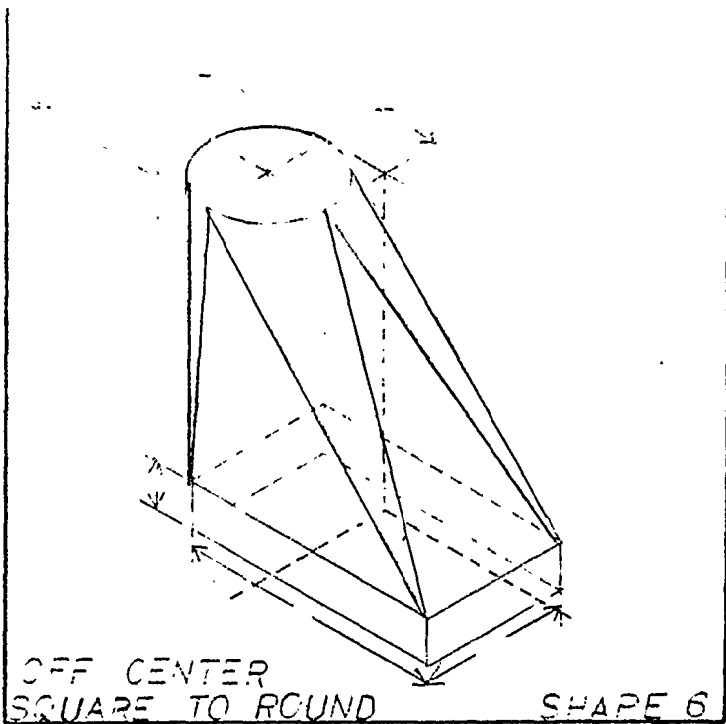
GORED ELBOW

SHAPE 5



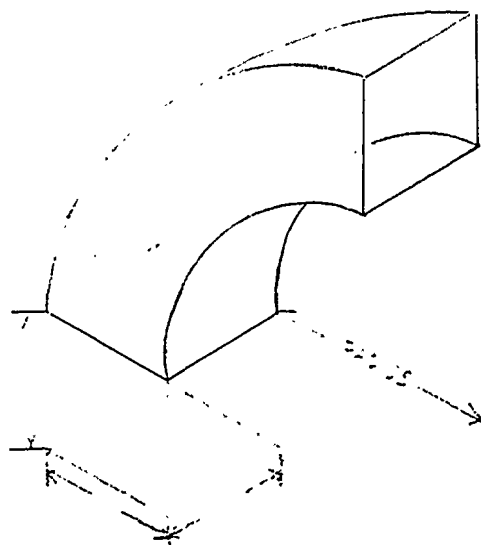
GORED ELBOW

NASSCO SHAPE 5

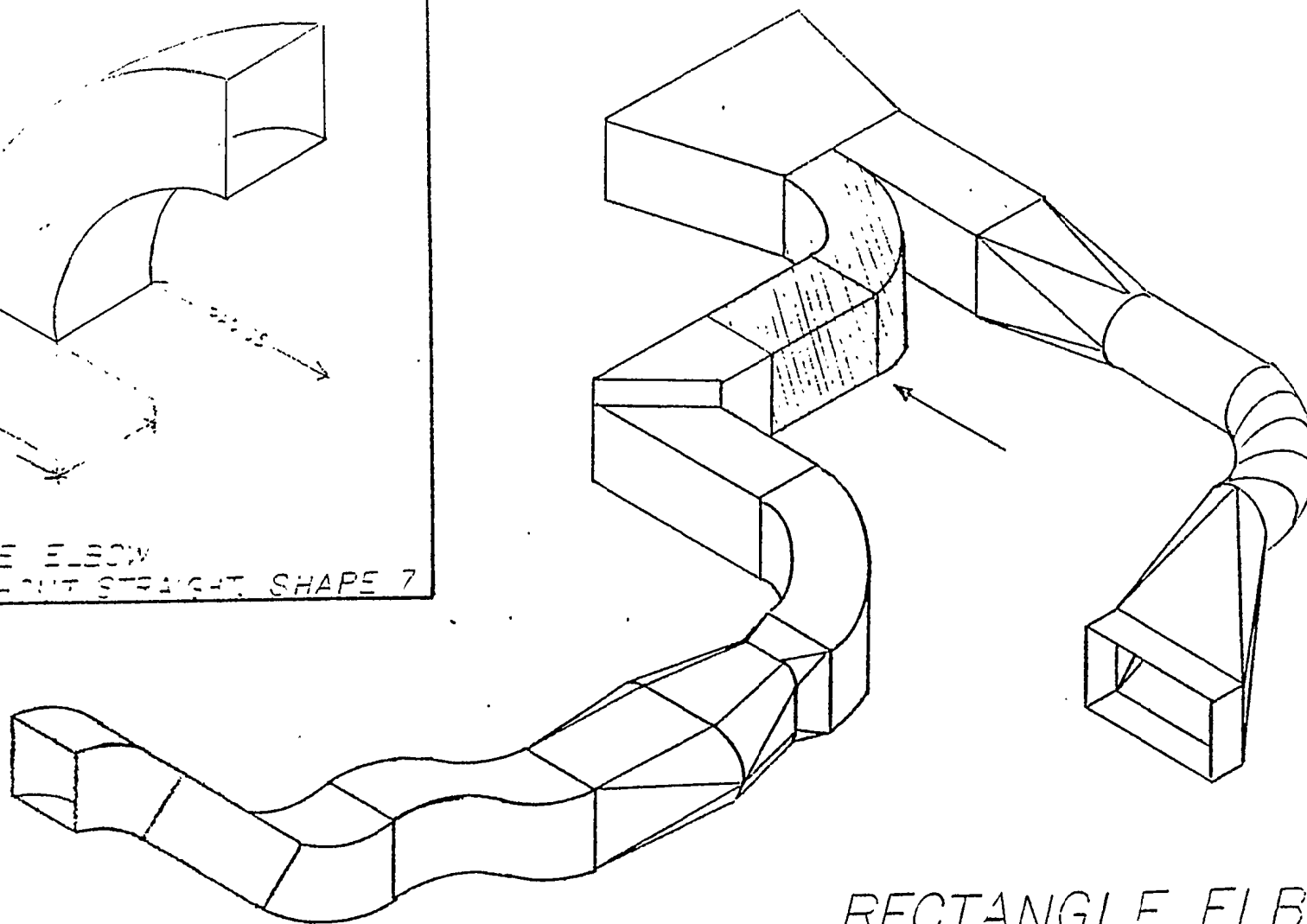


SQUARE TO ROUND
OFF CENTER, X/Y

NASSCO. SHAPE 6

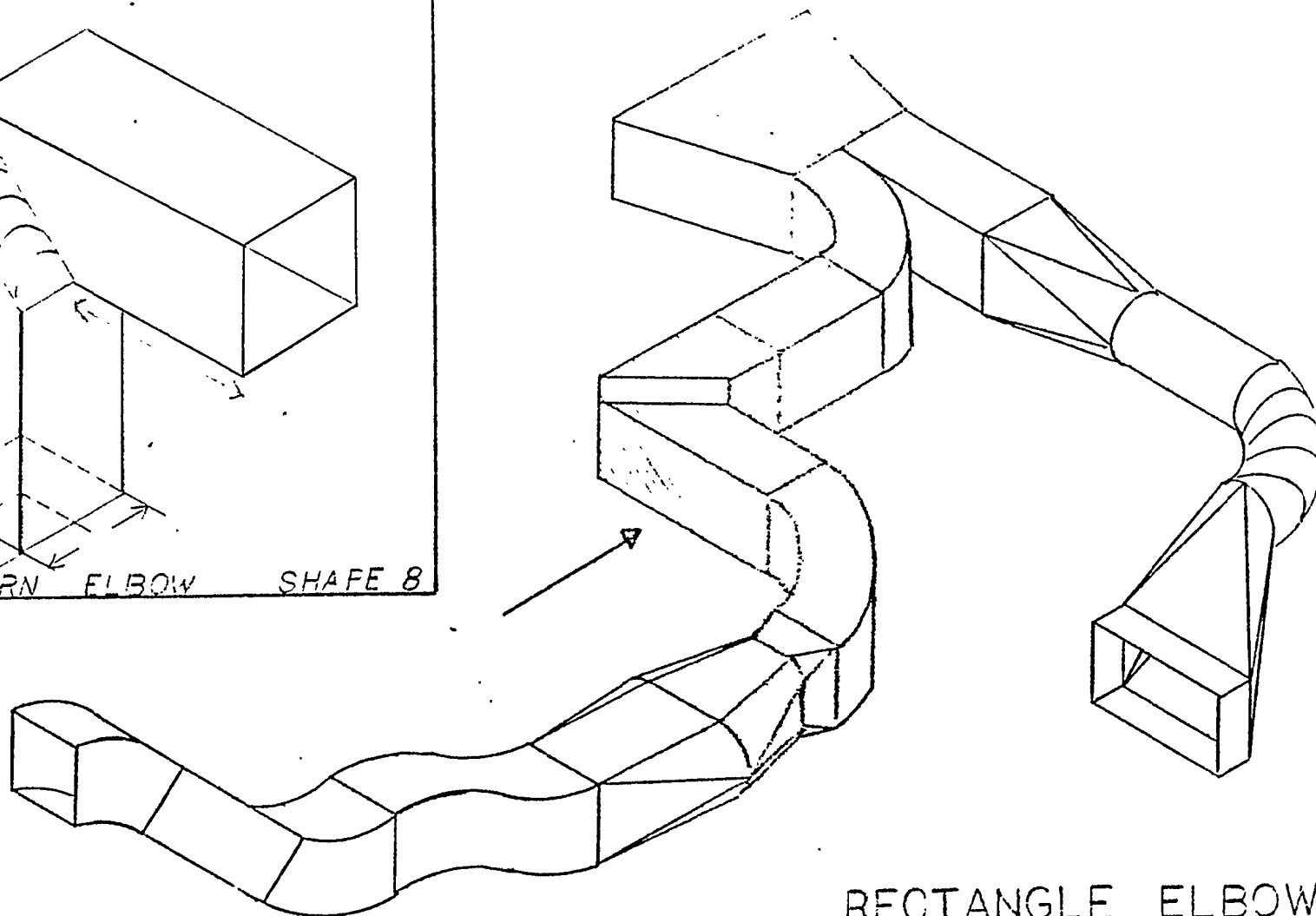
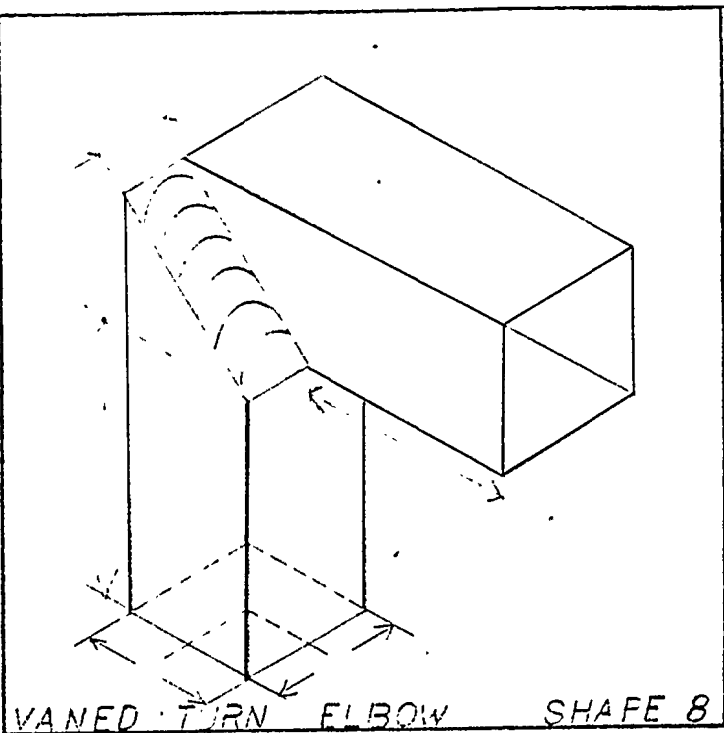


RECTANGLE ELBOW
WITH/ WITHOUT STRAIGHT. SHAPE 7



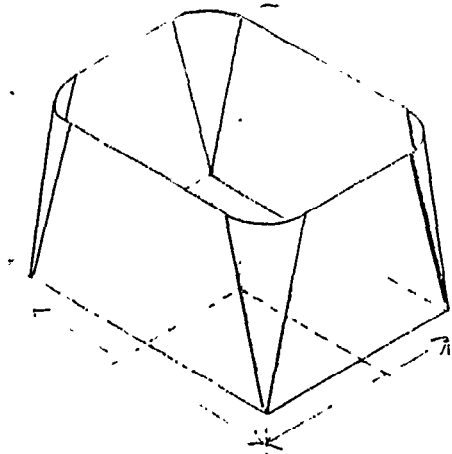
RECTANGLE ELBOW
WITH STRAIGHT

NASSCO SHAPE. 7

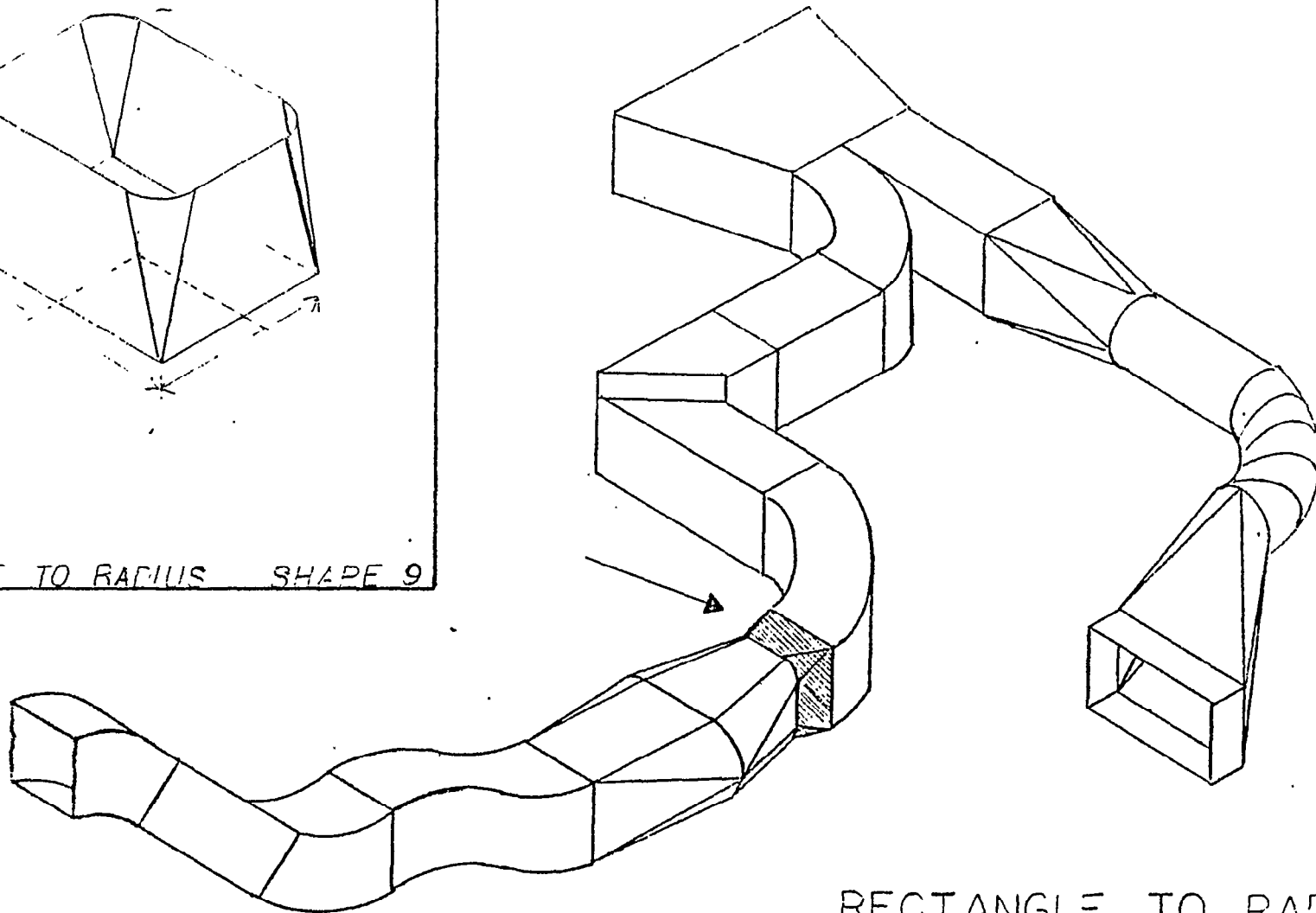


RECTANGLE ELBOW
WITH VANE TRACK

NASSCO. SHAPE 8

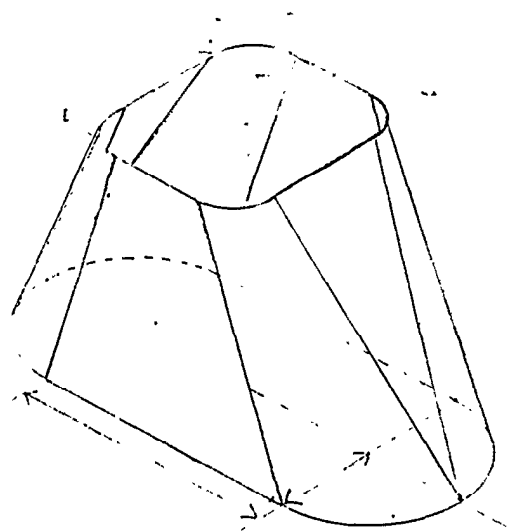


RECTANGLE TO RADIUS SHAPE 9

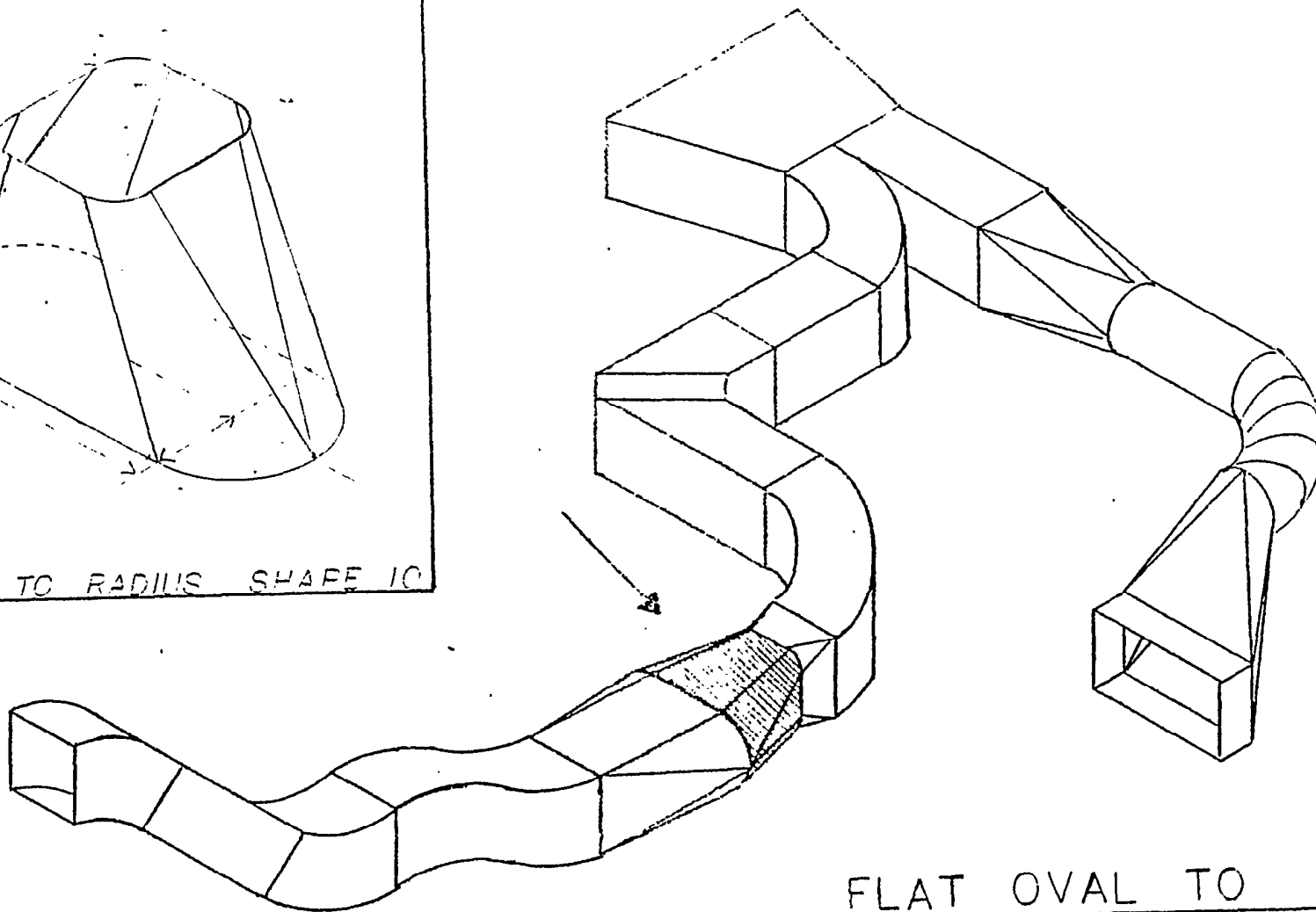


RECTANGLE TO RADIUS
CORNER

NASSCO. SHAPE 9

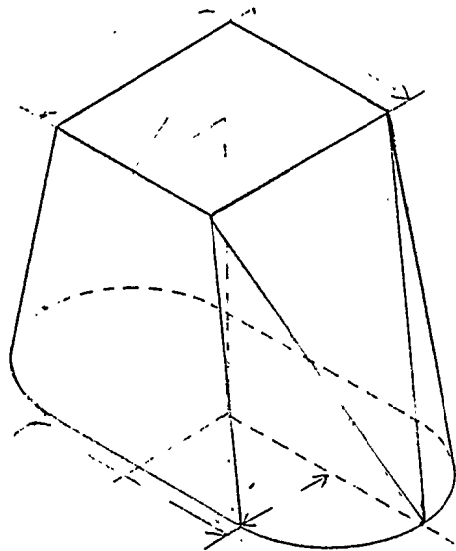


FLAT OVAL TO RADIUS SHAPE 10

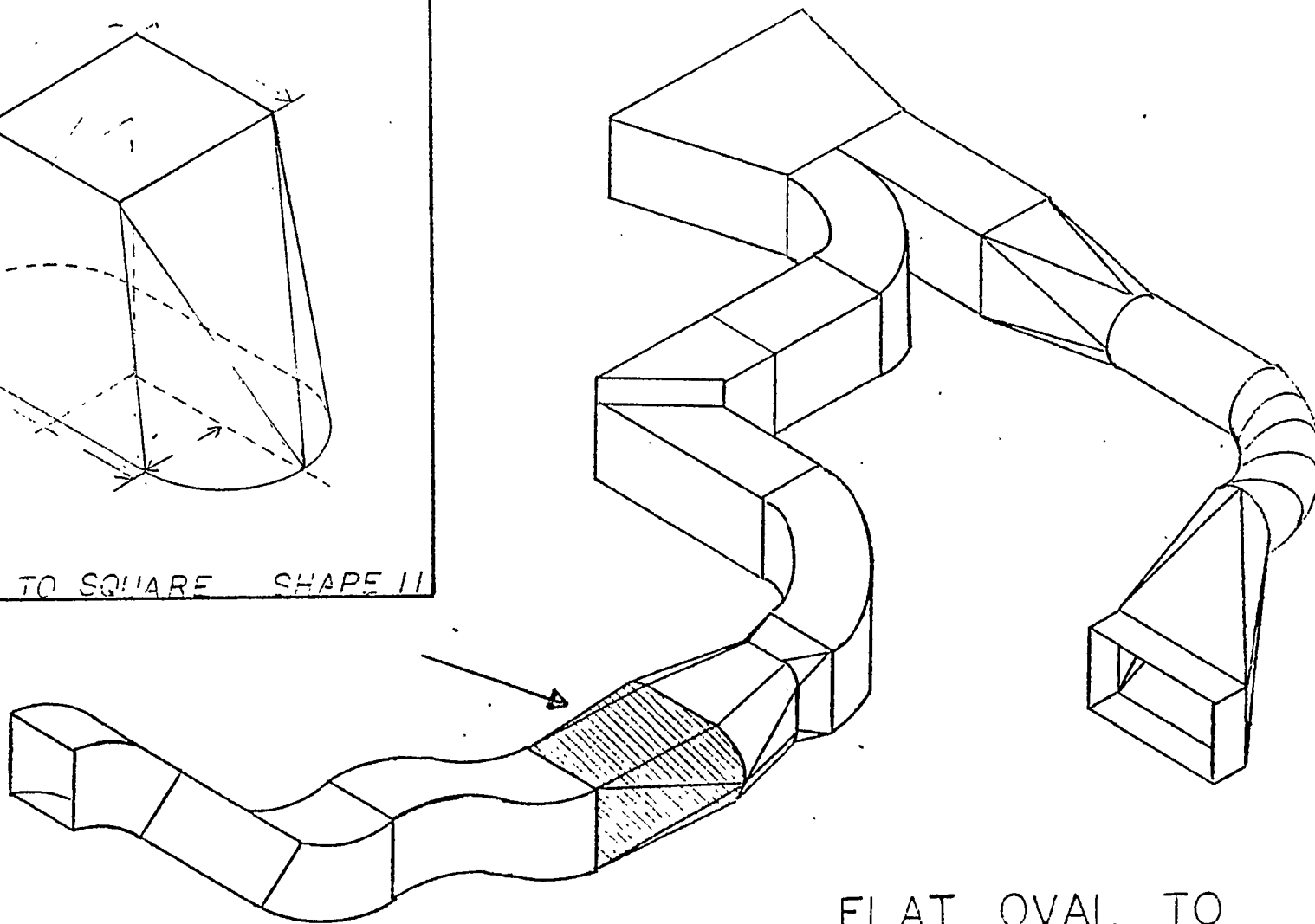


FLAT OVAL TO
RADIUS CORNER

NASSCO SHAPE 10

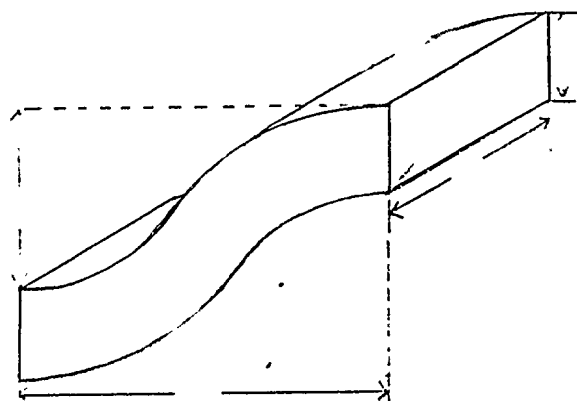


FLAT OVAL TO SQUARE SHAPE II



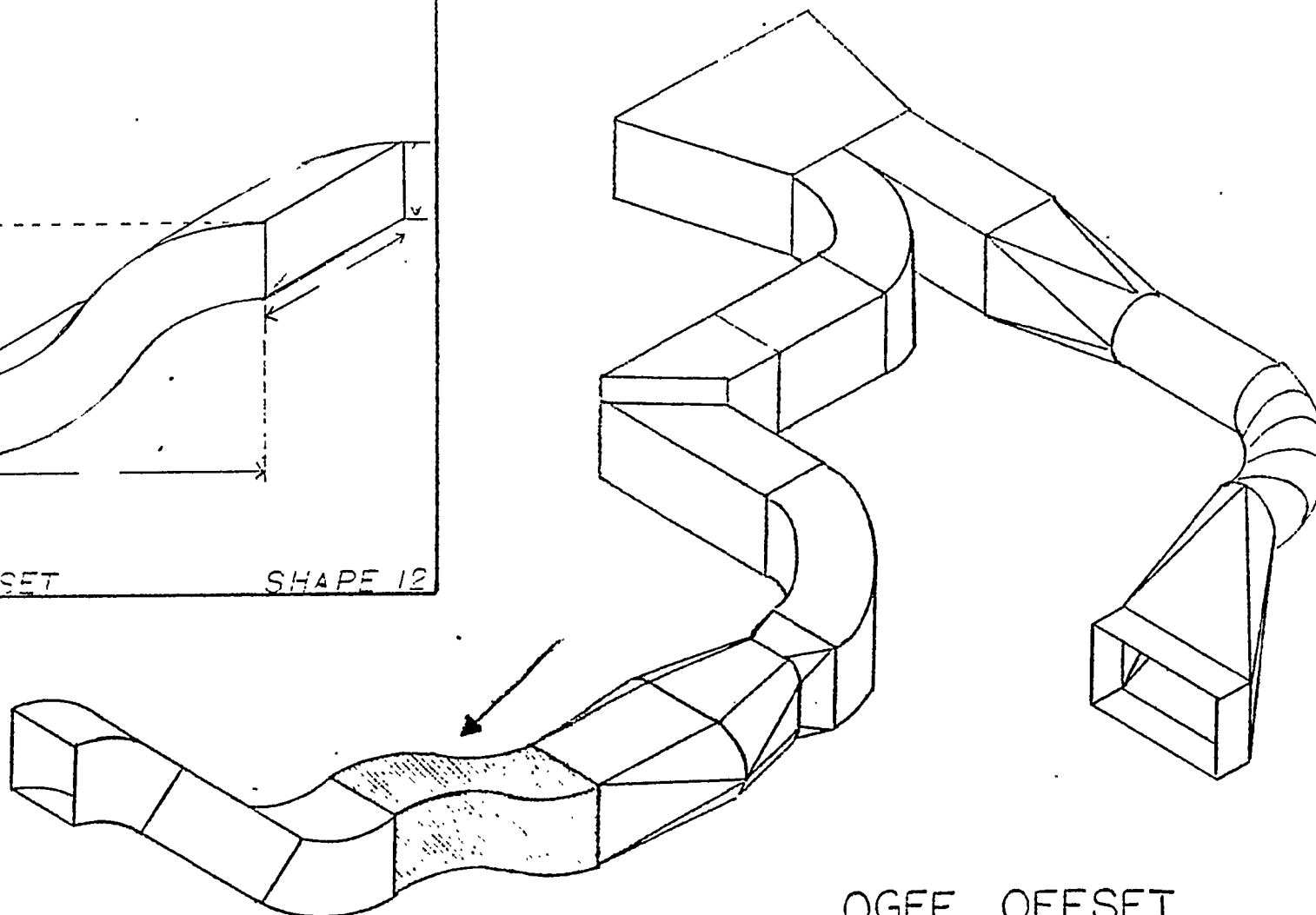
FLAT OVAL TO
SQUARE

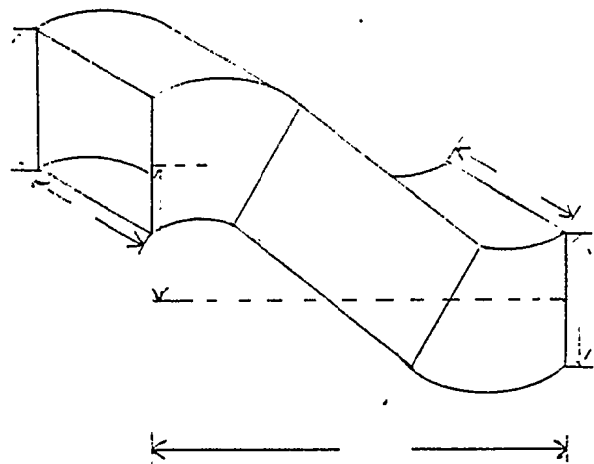
NASSCO SHAPE II



OGEE OFFSET

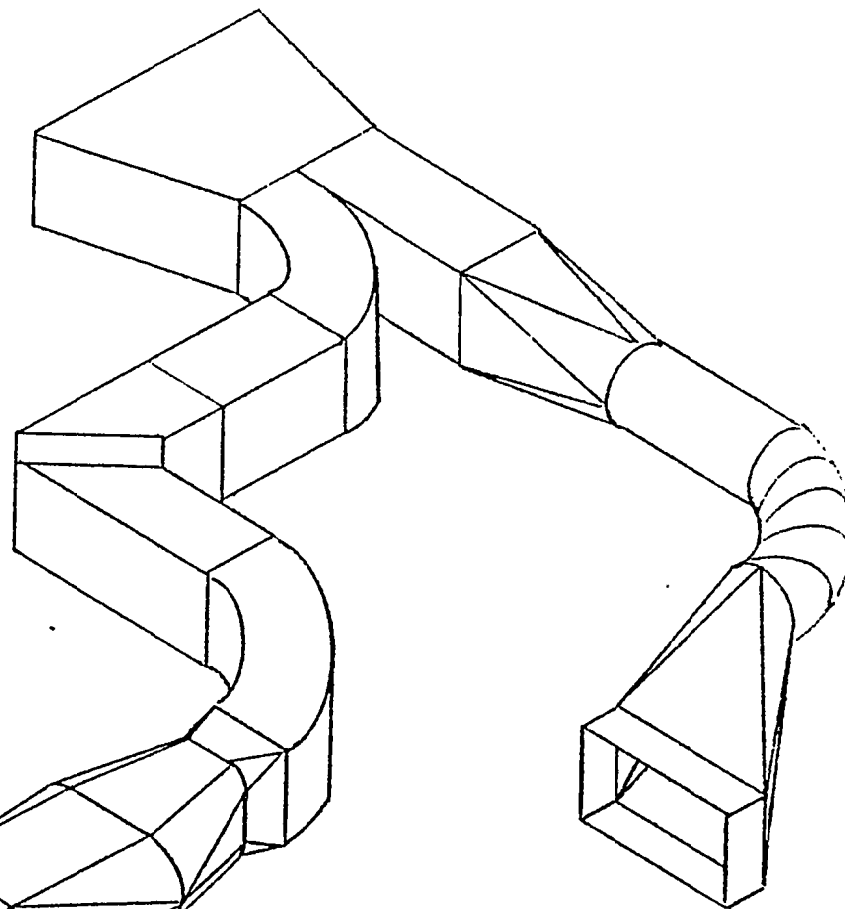
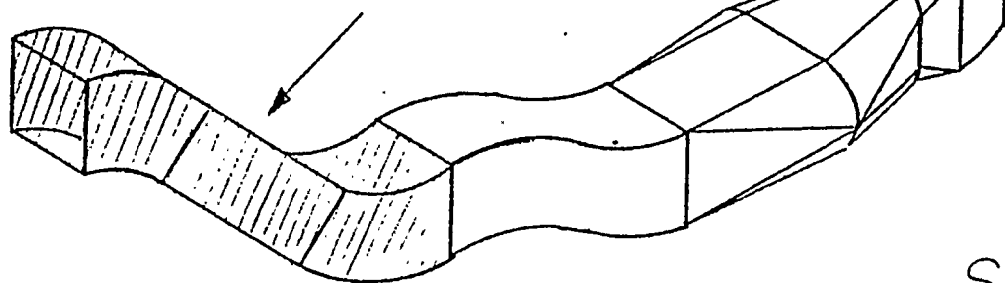
SHAPE 12

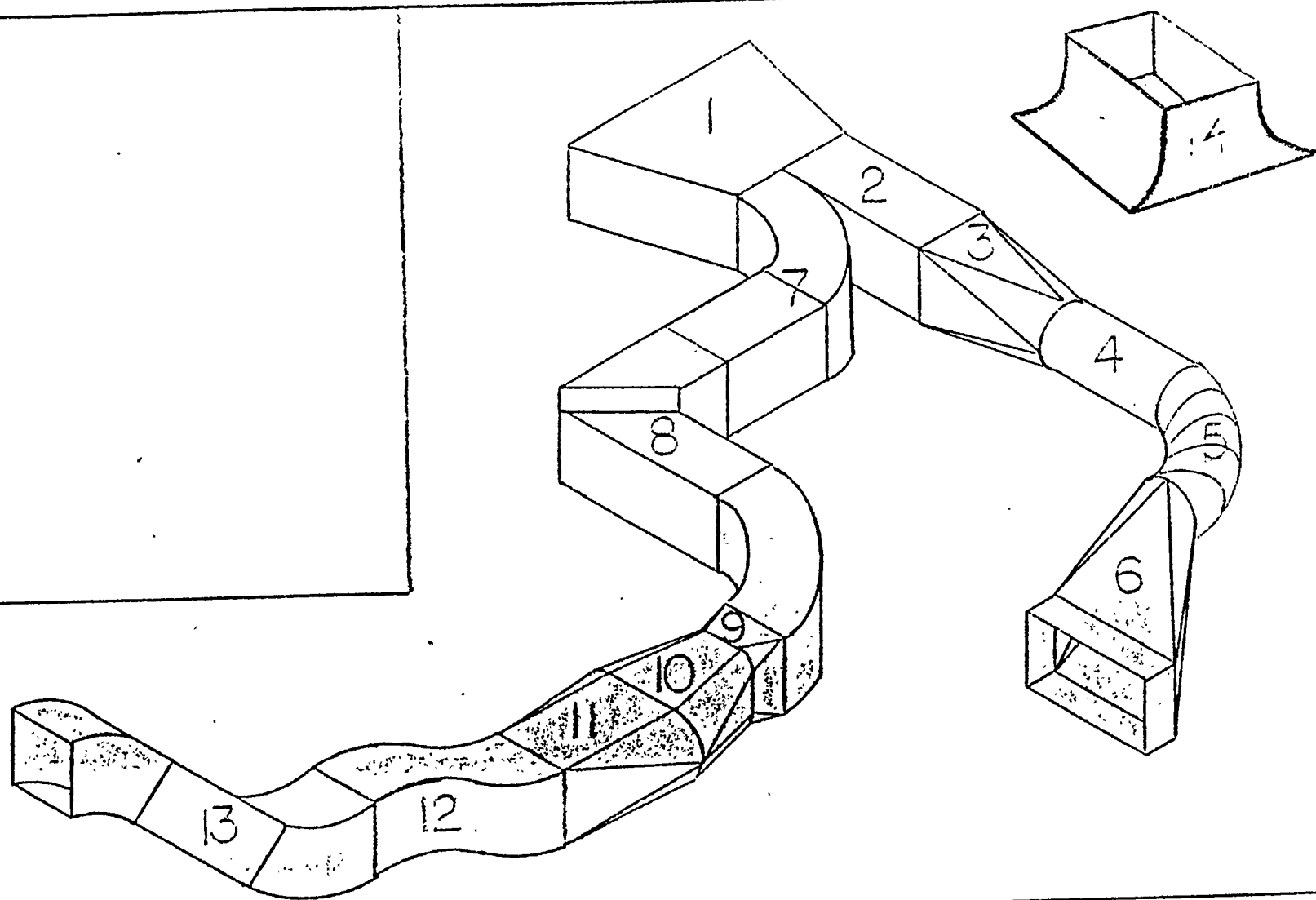
OGEE OFFSETNASSCO. SHAPE 12



STANDARD OFFSET

SHAPE 13

STANDARD OFFSETNASSCO · SHAPE - 13



NASSCO. SHAPE

1.3 Materials

For the purpose of this study the materials involved is standard galvanized sheet steel - FED SPEC QQ-S-775.

USSG	THICKNESS (Inches)	Pounds per Sq. Ft.	Pounds per 4x8 Sheet
11	.1233	5.16	165
16	.0635	2.66	85
18	.0516	2.16	69
20	.0396	1.66	53
22	.0336	1.41	45

NOTES:

1. See, also, Sheet 1 of NS-5500 (Page 23).
2. The gauge of galvanized sheet is shown on the MOST-analyses sheet in the backup data.

1.4 OPERATIONS

Here is a list of typical operations:

1. Sketch. The journeyman, following instructions from the Sheetmetal Planning Group, takes the engineering drawing and prepares a "sketch". This is a 3-D assembly drawing and consist of one or more of the Standard Shapes described in Section 1.2. Sometimes the engineering drawing is merely duplicated on the copying machine (enlarged if necessary). When complete the sketch contains all essential information - gauge, dimensions, details, auxillary views, et cetra. Shear size is also marked on this document.
2. Layout. If the sketch needs development (as in a square to round) the layout man using dividers, awl, square, steel rule and tin snips lays out the pattern and traces it on heavy layout paper, finally cutting to actual size. An alternate way to layout is to do this work on the computer for the CNC Whitney Panelmaster Punching and Plasma Ave Cutting Machine.
3. Markout. Here the various patterns and sketches are marked on the galvanized steel sheet preparatory to cutting to size. Sometime bend lines are marked as well as centerpunch marks. Also construction instructions and part numbers are also placed on the material.
4. Material Handling. The usual way to handle the typical 4x8 foot sheets of material is with a 4 wheel cart.

GENERAL NOTES

STANDARD RECTANGULAR DUCTING

1. Rectangular ducting will be manufactured from galvanized sheet steel of lock forming quality. FED SPEC QQ-S-775. All ductwork will be airtight.
2. Ducts exposed to the weather, or where required by Regulatory Bodies for structural fire protection or watertightness, will be 11 USSG (.1196 inch) and of welded construction.
3. All horizontal ducts in dry cargo holds will be 7.65# plate. All vertical ducts in dry cargo holds will be 10.2# plate. ^{3/16"}
4. All vertical ducts in shops, stores and other ^{1/4"} locations where subject to damage will be 11 USSG (.1196 inch).
5. Ducts manufactured from 11 USSG sheet will be made 1/8 inch undersized to accommodate standard flange sizes.
6. Ducts other than those mentioned above will be made with Pittsburgh Comer Lock Seams or Welded. Transverse joints will be overlapped and rivehed on 1-1/2 inch centers or spot welded with the external seams and rivets sealed with an approved fire resistive high velocity duct sealer. The thickness of material will be determined by the maximum dimension for rectangular ducts as follows:

All vertical exposed ducts and horizontal or concealed vertical ducts 24 inches and over { #16 USSG (.0598 inch) } ^{TAKES} 1 1/8 PITS JOINT

Horizontal or concealed vertical ducts less than 24 inches { #20 USSG (.0359 inch) } ²²
7. All ducts in machinery spaces will be 16 USSG (.0598 inch).
8. Circular or flat oval duct sections will be used in lieu of rectangular when passing through beams, girders or other strength members. These penetrations must be approved by the Hull Scientific, who will determine what reinforcement, if any, is required.
9. The following standard sizes of square or rectangular ducting will be adhered to where the use of round spiral ducting is impractical. The ratio of width to depth of standard sizes has been limited to 3-1.
10. Where it is necessary to design ducting outside the range of standard sizes, any component parts required will be detailed on the system drawing as a nonystandard part.
11. Where branch splits are required in rectangular ducts, the two-inch increment sizes will be maintained. The minimum split sizes being two inches.

DRAWN BY: JW

CHECKED BY:

APPD. BY: *K. Evans*

GENERAL NOTES

STANJMRDRECTANGUIARDUCTING

NS-5500 REV

SHTI 0F4 1 ' 0

5. Shear. This operation may be done before or after layout. Here the large 4x8 sheet is cut to the proper size in the powered square shear.
6. Nibbler. Irregular or curved pieces are "nibbled" to size with this machine or sometimes by hand with a unishear powered portable hand shear.
7. Band Saw. An alternate to nibbling, the bandsaw cuts notches and v-cuts.
8. Roll-Bender. Cylindrical shapes are rolled to size in one of the two powered rolls.
9. Duplicator. This machine, hydraulically powered, is a hole puncher. A pattern device that guides a pin into a master pattern can be used to punch a desired hole configuration.
10. Drill Press. This typical shop machine drill holes.
11. NC Drilling Machine. To achieve a desired hole pattern in a square configuration, angle flanges are drilled on this machine. Usually 7/16 holes for 3/8 bolts.
12. Small Press-Brake. For bending 16 gauge and thinner. Pan brakes and leaf brakes are also used for bending.
13. Large Press Brake. A 200 ton mechanical press, this machine will bend quite thick metal.
14. Lockformer. To produce the form required for Pittsburgh joints there are two basic machines: one to produce the Pittsburgh portion and another to make a flange on the material that will be inserted into the joint. There are also other small, powered, edge forming machines. See page 43.
15. Spot Welder. For welding lapped joints.
16. Fitting. Essentially a hand process, the various sheet metal formed and flat parts are assembled together to make the complete shape.
17. Welding. Besides TIG (tungsten inert gas) and MIG (metal inert gas) hand welding there is also a butt joint automatic seam welder capable of welding an 8 foot long water-tight seam in either TIG (for aluminum or stainless steel) or MIG (for galvanized steel).

SECTION 2

2.0 STANDARD PRACTICES AND POLICIES

2.1 Care of Equipment and Work Area

The journeymen take care of their own tools and work area, picking up scrap as they go and cleaning up at the end of every shift. The foremen are responsible for preventive maintenance either doing it themselves or getting Maintenance trades to do it for them.

2.2 Quality Control and Inspection

The inspection is usually performed by the journeyman who does the work, or the foreman. On Navy New Construction (but not conversion or repair work) an inspection step is done by the foreman with a copy sent to Quality Assurance who verify the inspection with spot checking. Essentially this is "in process" inspection as another, final, inspection occurs when the sheetmetal assemblies are installed aboard ship. See Form 800-34 in the "Sample Forms" Section at the end of the manual.

2.3 Material Service

The sheetmetal shop has its own fork trucks to move heavy material around.

Outside stock racks contain the various gauges of galvanized sheetmetal and the fitters get their own material, sometimes with help. Up to several sheets are transported with 4 wheeled carts. The usual method of transportation is with a 3.5'x5' by 33 inches high cart with two (2) fixed and two (2) swivel wheels. Purchased material - fans, heat exchangers, etc. - is staged in the shop for incorporation into the sheetmetal assembly. Miscellaneous hardware is kept in the stockroom and issued as required.

2.4 Supply and Maintenance of Tools

Tools are supplied from two (2) sources: the first is from the journeyman's tool "list" that each employee is obliged to purchase and maintain. Other, more expensive tools are furnished by the sheetmetal shop tool room on a check-out basis. These tools are described on the following pages.

TOOL LIST

EMPLOYEE NAME

BADGE

THE FOLLOWING IS A LIST OF HAND TOOLS
REQUIRED FOR EACH SHEETMETAL FITTER

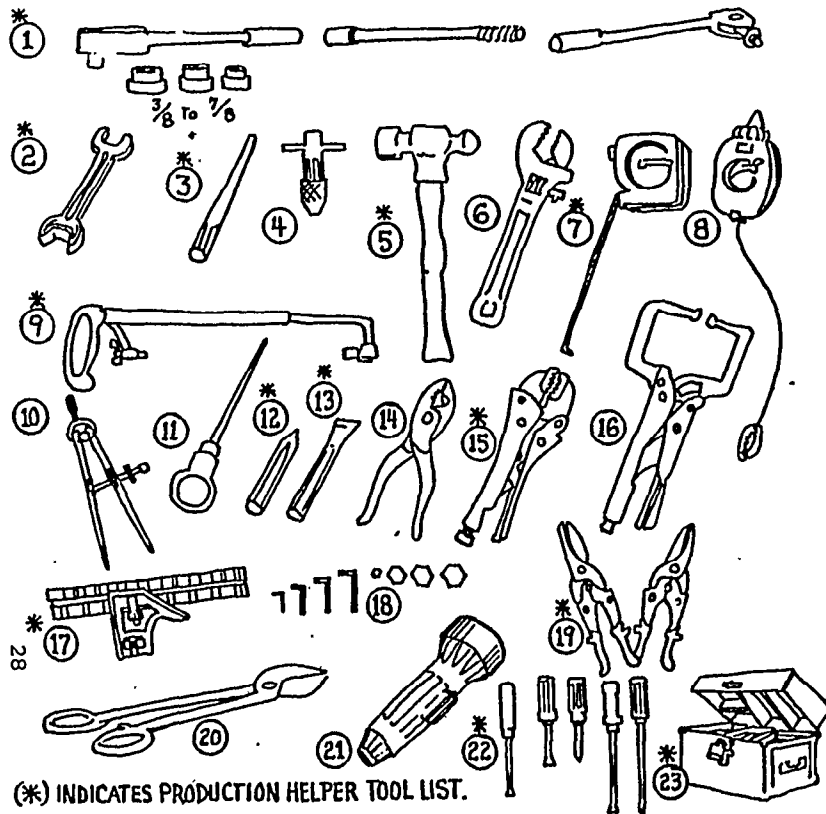
THESE TOOLS ARE TO BE KEPT IN GOOD WORKING CONDITION AT ALL TIMES.
PERIODICALLY TOOL INSPECTION WILL BE MADE TO INSURE ALL REQUIRED
TOOLS ARE KEPT AND MAINTAINED IN GOOD WORKING CONDITION.

1 ea.	3/8 Drive Socket Wrench Set, with Ratchet and 12" and 6" Extension (with U Joint)
1 ea.	Open End Wrench Set 3/8" thru 7/8"
2 ea.	1/2" Drift Pins
2 ea.	3/8" Drift Pins
1 ea.	Tap Handle
1 ea.	Hacksaw Frame
2 ea.	10" Vise Grips
2 ea.	Vise Grip "C" Clamps
1 ea.	8" Adjustable Dividers
1 ea.	Scratch Awl
1 ea.	9" Center Punch
1 ea.	1/2" Cold Chisel
1 ea.	3/4" Cold Chisel
1 ea.	8" Crescent Wrench
1 ea.	Pliers
1 ea.	16 oz. Ball Peen Hammer
1 ea.	10 foot Steel Tape Rule (yo-yo type)
1 ea.	12" Comb. Square w/Square Head
1 ea.	Left Hand Aviation Snips and Right Hand Aviation Snips
1 ea.	Pair Leather Gloves
1 ea.	Stubby Screw Driver (standard bit)
1 ea.	4 inch Screw Driver (standard bit)
1 ea.	6 inch Screw Driver (standard bit)
1 ea.	Stubby Screw Driver (Phillips)
1 ea.	6 inch Screw Driver (phillips)
1 ea.	Allen Wrench Set
1 ea.	Chalk Line (50 foot)
1 ea.	Flashlight (2 cell)
1 ea.	Tool Box with Lock
1 pr.	Pencil Dividers

TOOL CONTROL RECORD
REQUIRED MINIMUM TOOL LIST FOR
WELDERS AND PIPE WELDERS

[illegible]

MINIMUM TOOL LIST



(*) INDICATES PRODUCTION HELPER TOOL LIST.

- ① $\frac{3}{8}$ " DRIVE SOCKET WRENCH SET, WITH RATCHET AND 12" AND 6" EXTENSION.
- ② OPEN END WRENCH SET $\frac{3}{8}$ " THRU $\frac{1}{2}$ ". ③ DRIFT PINS $\frac{1}{2}$ " (2 EA.) $\frac{3}{8}$ " (2 EA.).
- ④ TAP HANDLE. ⑤ 16 OZ. BALLPEEN HAMMER. ⑥ 8" CRESCENT WRENCH.
- ⑦ 10 FT. STEEL TAPE RULE (YO-YO) TYPE. ⑧ CHALK LINE (50 FT). ⑨ HACKSAW FRAME.
- ⑩ 8" ADJUSTABLE DIVIDERS. ⑪ SCRATCH AWL. ⑫ 9" CENTER PUNCH. ⑬ COLD CHISEL $\frac{1}{2}$ ", AND $\frac{3}{4}$ ". ⑭ PLIERS. ⑮ 10" VICE GRIPS (2 EA.) ⑯ VICE GRIP "C" CLAMP. (2 EA.).
- ⑰ 12" COMBINATION SQUARE WITH SQUARE HEAD. ⑱ ALLEN WRENCH SET.
- ⑲ LEFT AND RIGHT HAND AVIATION SNIPS. ⑳ 17" HEAVY DUTY BULL DOG SNIPS.
- ㉑ FLASHLIGHT (2 CELL). ㉒ 4" SCREW DRIVER (STANDARD BIT), STUBBY SCREW DRIVERS (STANDARD AND PHILLIPS), 6" (STANDARD AND PHILLIPS).
- ㉓ TOOL BOX (WITH LOCK).

GENERAL PRECAUTIONS AND REMNERS

HELMETS MUST BE WORN OUTSIDE OF SHEET METAL SHOP.
EYE PROTECTION MUST BE WORN IN ALL PARTS OF THE YARD.
NEVER LOOK DIRECTLY AT AN ARC.
LONG HAIR AND BEARDS MUST BE PROTECTED.
EAR PROTECTION MUST BE WORN AS NEEDED.
DO NOT WEAR LOOSE, OR TORN CLOTHING.
NECKTIES AND DANGLING JEWELRY ARE HAZARDOUS.
BE AWARE OF TRIPPING HAZARDS.
PROTECTIVE SHOES SHOULD BE WORN.
STANDING WATER CAN BE A POTENTIAL ELECTRICAL HAZARD.
MAKE SURE ALL GUARDS ARE IN PLACE BEFORE ATTEMPTING.

TO OPERATE ANY MACHINE.
NEVER ATTEMPT TO BYPASS MACHINE GUARDS.
IN BURNING AND WELDING AREAS CAUTION SHOULD BE TAKEN
TO AVOID CONTACT WITH HOT METAL.

Do NOT LEAVE TOOLS AND MATERIAL SCATTERED ABOUT.
BE ALERT FOR LOOSE, BROKEN, OR WORN PARTS.
REPORT ANY DAMAGED EQUIPMENT.

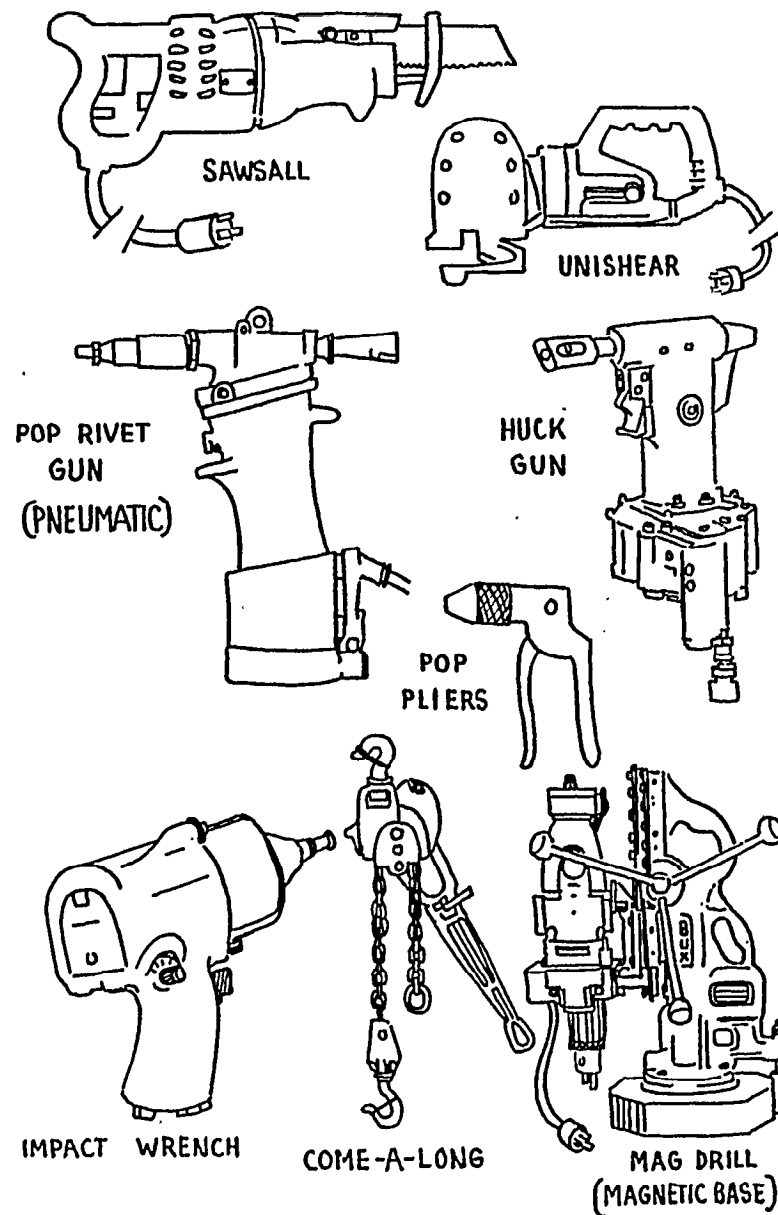
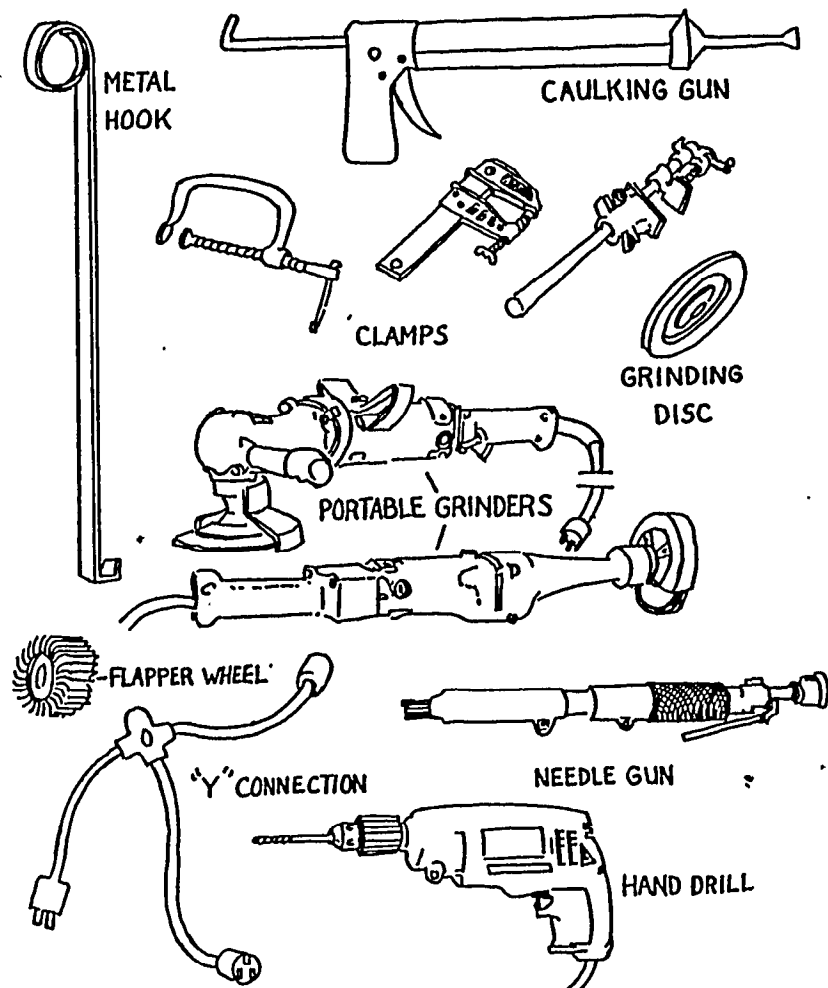
ALL INJURIES MUST BE REPORTED IMMEDIATELY.

WHEN LIFTING, USE LEGS NOT BACK.
BE AWARE OF SHARP EDGES WHILE WORKING WITH METAL.
GLOVES ARE NOT RECOMMENDED AND SHOULD NOT BE WORN
WHEN USING POWER TOOLS.

TOXIC FUMES ARE PRODUCED WHEN WELDING GALVANIZED
AND PAINTED METALS. INSURE PROPER VENTILATIONS
PROVIDED, OR A RESPIRATOR SHALL BE WORN.

PORTABLE TOOLS - TOOL ROOM

THE FOLLOWING ILLUSTRATED TOOLS ARE FOUND IN THE SHOP, AND ONBOARD SHIP IN THE GANG BOX. DEADMAN SWITCHES, WHERE EMPLOYED, ARE FOR YOUR PROTECTION AND MUST NOT BE DEFEATED. IF EQUIPMENT IS IN NEED OF REPAIR, IT SHOULD BE DONE BY QUALIFIED PERSONNEL. REPORT ANY DISCREPANCY TO YOUR FOREMAN.



2.5 Work Assignments

The Sheetmetal Planning Office issues a schedule updated once a week to act as a general guide. All work generally flows through the "machine foreman" who takes the shop instructions in the form of sketches, NC tapes, and patterns and starts the initial process. After flat piece production the work proceeds to other foremen and fitters for final assembly.

Basically the shop foreman assigns all work and keeps the work moving.

2.6 Time and Production Reporting

Each fitter and welder has a new time card each day that he hands to the foreman after he clocks in. The foreman fills out the card during each day with the proper charge number(s) and the time in hours and returns it to the operator at the end of each shift. The operator clocks out with the card. The charge number is tracable to the hull number, a code number signifying "ventilation", and the appropriate engineering drawing number.

2.7 Set-Up and Tear-Down

The set-up time is part of each work package and no separate time is allowed. Set-up in a shipyard sheetmetal shop may be a major activity as the production "runs" are very low.

2.8 Safety Responsibilities

The Company's safety rules are very explicit and the fitter is expected to follow them. Enforcement is in the hands of the foreman and management. Please see the following pages for company and department safety policies and rules.

2.9 Supervisory Responsibilities

The foreman has a number of responsibilities including:

1. Know and maintain the Company's safety rules and procedures.
2. Get the work out on time.
3. Make work assignments.
4. Maintain quality standards and good workmanship.
5. Expedite material, parts, and necessary maintenance.
6. Deal with personnel problems.
7. Represent NASSCO management to the workers and the community.

THE NASSCO SAFETY POLICY

The NASSCO Safety Policy is of utmost importance to every NASSCO employee, regardless of job. This Policy, which represents Management's renewed commitment to a safe working environment requires from all of us our complete cooperation in fulfilling this goal.

NASSCO Management, Which includes all levels of supervision, ranks SAFETY equal in importance with PRODUCTIVITY and PRODUCT QUALITY.

NASSCO Management believes that:

All injuries can be prevented. Prevention of all injuries is a realistic goal. A supervisor with responsibility for the well-being of employees cannot be effective without fully accepting this principle.

It is possible to protect against all operating hazards. No matter what the exposure, an effective safeguard can be provided.

NASSCO Management further believes that:

It is the responsibility of Management to provide a safe work environment in which the employees can perform their job assignments. All supervisors must be aware of safety requirements and must assure that no employee is given a job assignment without first determining that the employee can perform his or her duty under safe conditions.

It is the responsibility of Management to look for better and safer ways to perform a job.

It is the responsibility of Management to provide ongoing education and training for all employees so they can learn safe working habits.

It is the responsibility of Employees once they are adequately trained and instructed, to work safely and to lookout for themselves and their fellow workers.

It is the responsibility of Employees to comply with safety standards, rules and regulations.

It is the responsibility of Employees to call supervisors' attention to any unsafe condition or act.

It is the responsibility of Employees to refrain from tampering with or abusing of safety devices.

Accidents are costly not only in terms of human pain and suffering, but also in terms of productivity and efficiency in NASSCO'S operations. These have a direct impact on NASSCO's competitive posture within the shipbuilding and repair industry. Only if Manager and Employees together give safety the attention it must get to avoid injuries, the future well-being of NASSCO and its employees be assured.

0.15
 NAME _____ BADGE _____
 ADDRESS _____ CITY _____
 ZIP _____ PHONE _____

TODAYS DATE _____

DATE HIRED (ANNIV. DATE) _____

SAFETY MEMO FOR SHEETMETAL WORKERS

BELOW IS A LIST OF ITEMS WE WOULD LIKE FOR YOU TO READ. AS YOU READ THEM, FEEL FREE TO ASK ANY QUESTIONS YOU MIGHT HAVE. IF WE CAN'T ANSWER THEM, WE WILL DO OUR BEST TO GET AN AN ANSWER FOR YOU.

1. 1. THE NUMBER ONE ITEM IN THIS SHIPYARD IS SAFETY. THE REASONS ARE:

- A. SUPERVISORS IN TEE SHEETMETAL DEPARTMENT ARE ALWAYS CONCERNED FOR YOUR SAFETY. IF YOU ARE INJURED AND OFF WORE YOU SUFFER PAIN, YOUR FAMILY IS DEPRIVED BECAUSE OF LOST PAY AND IT IS DIFFICULT FOR THE DEPARTMENT TO MAINTAIN ITS PRODUCTION SCHEDULE WREN YOU ARE INJURED.
- B. NASSCO HAS SAFETY RULES "SAFETY FIRST-LAST-ALWAYS", WHICH WE MUST ABIDE BY.
- C. OSHA (CAL & FED) ALSO HAVE RESTRICTIONS WE MUST ADHERE TO.
- D. MANY ACCIDENTS ARE CAUSED BECAUSE OF THE WORK HABITS OF THE EMPLOYEE. WE AT NASSCO HOPE THAT YOU COME TO WORE EACH DAY WITH A POSITIVE ATTITUDE. WE HAVE ATTACHED A SHEET ON ATTITUDES AND WE ASK THAT YOU READ IT AND LOOK AT THE NEGATIVE AND POSITIVE ATTITUDE WHILE YOU ARE READING.

2. SAFETY REQUIREMENTS

- A. ALL WORE MUST BE DONE IN A SAFE WAY. EVERY PRECAUTION MUST BE TAKEN TO ACCOMPLISH EVERY JOB SAFELY.
- B. COMPANY SAFETY RULES REQUIRE APPROVED SAFETY GLASSES BE WORN AT ALL TIMES 'IN THE YARD. CHECK WITH YOUR SUPERVISOR TO SEE IF YOUR PRESCRIPTION GLASSES ARE APPROVED INDUSTRIAL SAFETY GLASSES. NON-PRESCRIPTION GLASSES ARE AVAILABLE AT TEE CENTRAL TOOL ROOM. PRESCRIPTION GLASSES MAY BE OBTAINED THROUGH THE COMPANY. HOWEVER, ATLEAST PART OF THE EXPENSE WILL BE THE EMPLOYEES RESPONSIBILITY. IF YOU ARE A WELDER YOUR SAFETY GLASSES MUST BE WORN UNDER YOUR HOOD. THE GLASSES IN YOUR HOOD ARE NOT CONSIDERED ENOUGH EYE PROTECTION SO YOU MUST WEAR YOUR SAFETY GLASSES UNDER YOUR WELDING HOOD.
- C. COMPANY SAFETY RULES REQUIRE THAT HARD HAT BE WORN AT ALL TIMES EXCEPT IN THE SHEETMETAL SHOP.

IF YOU ARE A WELDER, YOU MUST WEAR YOUR BARD HAT WITH YOUR WELDING HOOD ATTACHED TO THE HARD BAT. OTHER TYPES OF WELD HOODS ARE NOT LEGAL EXCEPT WHEN APPROVED BY YOUR DEPARTMENT READ OR A SAFETY SPECIALIST.
- D. YOU MAY BE REQUIRED TO WORE IN CLOSE PLACES. IF YOU DO AND YOU ARE WELDING, BURNING OR WORKING WITH OR CLOSE TO ANYONE WHO IS WELDING OR BURNING ON GALVANIZE MATERIAL, ON A PAINTED SURFACE OR A SURFACE COATED WITH APRESERVATIVE, YOU MUST HAVE AN EXHAUST VENTILATION TUBE WITHIN SIX (6") INCHES OF THE WORK.

YOU SHOULD ALSO WEAR A RESPIRATOR. RESPIRATORS CAN BE OBTAINED FROM THE TOOL ROOM THROUGH YOUR SUPERVISOR. VENTILATION CAN BE OBTAINED FROM THE TEMPORARY SERVICES DEPARTMENT THROUGH YOUR SUPERVISOR. SUPERVISORS MUST ENFORCE THE REQUIREMENT FOR PROPER VENTILATION AND WEARING RESPIRATORS.

THE TEMPORARY SERVICES DEPARTMENT HAS THE RESPONSIBILITY OF STARTING AND TURNING OFF CERTAIN TYPE OF BLOWERS THROUGHOUT THE YARD. IT IS VERY IMPORTANT THAT THESE BLOWERS BE LEFT OPERATING ONCE THEY HAVE BEEN TURNED ON IN ORDER TO AVOID THE POSSIBILITY OF A BUILD-UP OF HAZARDOUS FUMES. WE HAVE RECEIVED REPORTS OF SOME EMPLOYEES TURNING OFF THESE LARGE BLOWERS DURING LUNCH BREAK. THIS IS A SERIOUS PROBLEM THAT CANNOT BE IGNORED.

NO ONE OTHER THAN AUTHORIZED EMPLOYEES IS TO TURN OFF THESE BLOWERS ONCE THEY HAVE BEEN TURNED ON BY TEMPORARY SERVICES. IN THE EVENT THESE BLOWERS NEED TO BE TURNED OFF, EMERGENCY OR OTHERWISE, CALL TEMPORARY SERVICES AT EXTENSION 2-258.

BEGINNING 05/07/79, VIOLATIONS OF THIS PROCEDURE WILL BE CONSIDERED A TERMINATION OFFENSE UNDER GENERAL RULE A OF THE COMPANY'S ESTABLISHED WORK RULES. THIS PROCEDURE WILL NOT APPLY TO STARTING AND TURNING OFF THE SMALL LOCAL EXHAUST BLOWERS USED BY WELDERS.

- E. IT IS PRESENTLY MANDATORY THAT YOU WEAR HEARING PROTECTION IN THE SHEETMETAL SHOP. IN OTHER AREAS IT IS RECOMMENDED THAT YOU WEAR HEARING PROTECTION WHEN WORKING WHERE THERE IS LOUD NOISES. HOWEVER, IF YOUR SUPERVISOR DETERMINES THAT THE NOISE LEVEL IS SUCH THAT DAMAGE TO YOUR HEARING IS POSSIBLE HE/SHE CAN MAKE IT MANDATORY FOR YOU TO WEAR HEARING PROTECTION.
- F. YOU WILL HAVE OCCASIONS TO WORK ON SCAFFOLDING OR STAGING. SEVERAL THINGS TO KEEP IN MIND ARE:
 - 1. NEVER HAVE LESS THAN TWO (2) 12" PLANKS TO WALK ON.
 - 2. IF YOU ARE WORKING OVER 5' HIGH, YOU MUST HAVE GUARD RAILS TO KEEP FROM FALLING. THIS REQUIRES ATOP RAIL AND AMID RAIL. IF RAILING ARE NOT UP, YOU MUST WEAR A SAFETY BELT TIED OFF TO A SOLID STRUCTURE OTHER THAN THE SCAFFOLD. IF FOR SOME REASON YOU MUST MOVE GUARDRAILS OR PLANKS, BE SURE TO TELL YOUR SUPERVISOR SO THAT THEY CAN BE REPLACED SO THAT THE NEXT MAN UP THERE HAS PROPER PROTECTION.
 - 3. BEFORE CONSTRUCTING STAGING, CHECK PLANKS AND HORSES. NEVER USE FAULTY PLANKS, PLYWOOD OR HORSES. FOR MORE DETAIL ON STAGING SEE ATTACHED SHEET.
 - 4. NEVER MAKE CHANGES TO EXISTING SCAFFOLDING OTHER THAN HORSES AND PLANKS. IF CHANGES ARE TO BE MADE, CONTACT YOUR IMMEDIATE SUPERVISOR AND HE WILL GET SOMEONE TO MAKE THE NECESSARY CHANGES FOR YOU.
- G. YOU WILL HAVE MANY OCCASIONS TO WORK ON PORTABLE LADDERS. THEY ARE ONLY AS SAFE AS YOU MAKE THEM, WHEN A LADDER IS DAMAGED IN ANYWAY TAKE IT TO YOUR SUPERVISOR SO HE/SHE CAN EITHER HAVE IT FIXED OR DESTROYED. MAKE SURE THE LADDER IS OPENED UP PROPERLY AND IS SETTING ON A FLAT SURFACE BEFORE USING. IF LADDER IS LEANED AGAINST ANOTHER SURFACE MAKE SURE IT IS PROPERLY SECURED AT TOP AND BOTTOM BEFORE USING. NEVER WORK FROM THE TOP TWO RUNGS OF ANY LADDER. YOU SHOULD NEVER TRY TO REACH OUT BEYOND THE LADDER SO THAT YOUR BODY IS IN AN UNBALANCED POSITION.

- H. ALWAYS KEEP YOUR WORK AREA CLEAN. HANG ALL HOSES, LINES, LEADS AND ELECTRICAL CORDS UP OFF AND OUT OF THE WALKWAYS. NEVER WORK IN AN AREA WHERE YOU MUST CLIMB OVER SCRAP AND TRASH.
- I. IT IS RECOMMENDED THAT YOU WEAR SAFETY SHOES OR OTHER FOOT PROTECTION. A SHOE MOBILE COMES INTO NASSCO PERIODICALLY. YOU WILL BE NOTIFIED THROUGH THE BULLETIN BOARD AND YOUR SUPERVISOR THE NEXT TIME THE SHOEMOBILE WILL BE HERE. YOUR SUPERVISOR CAN PROVIDE YOU WITH THE FORMS NECESSARY FOR YOU TO MAKE A VISIT TO THE SHOE MOBILE. FILL OUT THE FORM AND GIVE IT TO YOUR SUPERVISOR AND HE WILL RETURN IT TO YOU SHOWING THE TIME AND DATE YOU MAY VISIT THE SHOE MOBILE. THERE ARE OTHER TYPES OF FOOT PROTECTION AVAILABLE IN THE CENTRAL TOOL ROOM. CHECK WITH YOUR SUPERVISOR AND HE/SHE WILL MAKE ARRANGEMENTS FOR YOU TO CHECK THEM OUT. TENNIS SHOES, SHOES WITH NO HEELS AND ALL CLOTH SHOES ARE PROHIBITED TO WEAR DURING WORK
- J. NEVER WEAR RAGGED OR TORN CLOTHING.
- K. K. BEFORE CLIMBING THE VERTICAL LADDERS ABOARD SHIP MAKE SURE THEY ARE SECURED SO IT WON'T SLIP WHILE YOU ARE CLIMBING.
- L. NEVER WALK UNDER A LOAD SUSPENDED BY A CRANE OR FORK LIFT.
- M. WHEN WORKING AROUND MACHINERY MAKE SURE THAT ALL GUARDS ARE IN PLACE AND KEEP YOUR MIND ON THE JOB AT HAND TO PREVENT SERIOUS INJURIES. NEVER REMOVE GUARDS FROM MACHINERY UNLESS AUTHORIZED BY YOUR SUPERVISOR. IF YOU SEE A GUARD THAT HAS BEEN REMOVED FROM THE MACHINERY, CONTACT YOUR SUPERVISOR.
- N. YOU SHOULD NEVER USE ANY MACHINERY BEYOND IT CAPACITY. THIS CAN CAUSE DAMAGE TO YOURSELF, YOUR FELLOW WORKER AND THE MACHINERY. ALMOST ALL OF THE MACHINES ARE MARKED AS TO IT'S CAPACITY. THERE ARE CERTAIN MACHINES IN THE SHEETMETAL SHOP THAT REQUIRE MACHINE OPERATORS ONLY AND YOUR SUPERVISOR WILL POINT THESE MACHINES OUT TO YOU.
- P. WHEN USING A COME-A-LONG YOU SHOULD FOLLOW THE FOLLOWING:
 - 1. ALWAYS KNOW CAPACITY AND CAPABILITY OF A COME-A-LONG. NEVER USE THE TOOL BEYOND ITS CAPACITY AND/OR CAPABILITY.
 - 2. ALWAYS MAKE A VISUAL INSPECTION OF ALL COME-A-LONGS BEFORE USING:
 - A. CHECK CHAIN FOR BAD LINKS AND END STOP.
 - B. CHECK HOUSING FOR CRACKS.
 - C. CHECK FORWARD AND REVERSE TRIGGER TO SEE THAT IT WORKS PROPERLY.
 - D. CHECK CHAIN RELEASE TO SEE THAT IT WORKS PROPERLY.
 - E. CHECK HOOKS FOR SAFETY DEVICE (MOUSE) AND MAKE SURE HOOKS ARE NOT SPREAD TOO FAR APART.
 - 3. IF COME-A-LONG DOES NOT OPERATE PROPERLY; TURN TN FOR REPAIR. DO NOT USE.
 - 4. NEVER USE CHEATERS (PIPE SLIPPED ON HANDLE) ON COME-A-LONG.
 - 5. NEVER USE UNAUTHORIZED BEAM CLAMPS OR PAD EYES, CLAMPS SHOULD BE STAMPED FOR WEIGHT CAPACITY.

6. COME-A-LONG HOOKS MUST ALWAYS BE MOUSED WHEN IN USE.
 7. COME-A-LONG MUST BE HOOKED IN PAD EYE OR BEAM CLAMP SO THAT WEIGHT IS IN THROAT OF HOOK. NEVER USE POINT OR EDGE OF HOOK TO LIFT OR MOVE OBJECT.
 8. ALWAYS USE BEAM CLAMPS OR PAD EYES WITH COME-A LONG. NEVER USE EDGE OF BEAMS. THIS CAUSES HOOK TO SPREAD, THEREFORE, WEAKENING HOOK.
 9. PAD EYES SHOULD ALWAYS BE WELDED SOLID ON THE OUTSIDE AND TACK WELDED ON INSIDE.
 10. BEAM CLAMPS SHOULD ALWAYS BE SECURED SO THEY WILL NOT SLIDE ON BEAM WHILE COME-A-LONG IS IN USE.
 11. IF A BEAM CLAMP OR PAD EYE BECOMES UNSAFE TO USE RETURN TO SUPERVISOR FOR REPLACEMENT.
 12. AN EVALUATION OF THE OBJECT BEING LIFTED TO DETERMINE WHETHER ONE OR TWO COME-A-LONGS SHOULD BE USED, MUST BE DONE BEFORE OPERATING COME-A-LONGS.
 13. ALWAYS BALANCE LOAD ON COME-A-LONG. COME-A-LONGS SHOULD ALWAYS BE HOOKED SO THAT LOAD WILL NOT SHIFT.
 14. NEVER ALLOW EXCESSIVE SLACK IN CHAIN. OBJECT COULD SLIP AND FALL.
 15. NEVER STAND, WALK OR WORK UNDER A LOAD WHILE BEING HELD BY A COME-A-LONG.
 16. NEVER LEAVE A COME-A-LONG IN OPERATION OVER NIGHT UNLESS AUTHORIZED BY SUPERVISOR.
 17. IF THE LOAD BEING HANDLED IS SUCH THAT IT WOULD BE UNSAFE TO USE SHEETMETAL DEPARTMENT COME-A-LONGS (3/4 TON), CONTACT YOUR SUPERVISOR FOR ASSISTANCE IN HOW TO HANDLE LOAD OR SEEK HELP FROM RIGGING DEPARTMENT.
 18. COME-A-LONGS SHOULD NEVER BE LEFT LAYING AROUND. WHEN NOT IN USE, RETURN TO GANG BOX.
 - 19.. NEVER LOAN COME-A-LONGS TO ANOTHER DEPARTMENT UNLESS APPROVED BY SUPERVISOR.
- Q. ANY TIME YOU ARE REQUIRED TO ENTER A TANK, YOU SHOULD ALWAYS CHECK WITH YOUR SUPERVISOR TO MAKE SURE, THE TANK IS GAS FREE AND YOU SHOULD ALWAYS HAVE PROPER VENTILATION BEFORE ENTERING THE TANK. MOST GASES ARE HEAVIER THAN AIR AND WILL THEREFORE SETTLE IN THE BOTTOM OF TANKS. SO REMEMBER TO ALWAYS CHECK TO SEE THAT TANKS ARE GAS FREE BEFORE ENTERING.
3. **NEW EMPLOYEES, ASSIGNED** TO THE SHEETMETAL SHOP WILL BE CONDUCTED ON A TOUR OF THE SHOP WITH A SUPERVISOR TO EXPLAIN THE MACHINES, THEIR CAPABILITIES, AND THEIR USES. DO NOT USE THESE MACHINES UNTIL YOU HAVE BEEN INSTRUCTED IN THEIR SAFE OPERATING PROCEDURES.
 4. IF YOU ARE INJURED ON THE JOB, YOU SHOULD NOTIFY YOUR FOREMAN IMMEDIATELY AND THEN HE WILL RELEASE YOU TO GO TO MEDICAL,

5. WE REQUEST THAT YOU DO NOT TAKE FOOD, NEWSPAPERS AND MAGAZINES ABOARD THE SHIPS. THESE ITEMS CREATE HOUSEKEEPING PROBLEMS AND FIRE HAZARDS.. HOWEVER, IF YOU DO TAKE FOOD ABOARD, THERE IS DESIGNATED EATING AREAS. ONLY IN THOSE AREAS ARE YOU ALLOWED TO EAT FOOD. PLEASE THROW ALL TRASH IN THE TRASH CAN.

6 .WHEN YOU ENTER AN AREA TO WORK, CHECK FOR THE FOLLOWING:

1. EXITS - BE SURE YOU KNOW THE DIRECTION YOU MUST GO TO EXIT. IF MORE THAN ONE, KNOW EACH ONE.
2. FIRE EXTINGUISHER: FIND CLOSEST EXTINGUISHERS FOR EACH TYPE OF FIRE. NEVER USE WATER ON ELECTRIC FIRE.

7. THE COMPANY HAS INSTALLED AN ALARM SYSTEM ABOARD SHIP UNDER CONSTRUCTION. EACH ALARM GIVEN REPRESENTS CERTAIN THINGS. EACH EMPLOYEE SHOULD MAKE THEMSELVES FAMILIAR WITH EACH SIGNAL SO THAT IF HE/SHE HEARS THAT ALARM THEY WILL KNOW WHAT TO DO.

FOLLOWING IS A LIST OF SIGNALS GIVEN WHEN NECESSARY:

1. FLOODING - HIGH-LOW STEADY TONE FOR TEN (10) SECONDS, TO BE REPEATED AS NECESSARY.
2. FIRE THREE TEN-SECOND BLASTS WITH A PAUSE BETWEEN EACH BLAST, TO BE REPEATED AS NEEDED, AUGMENTED BY ANNOUNCEMENT OVER THE LOUDSPEAKER SYSTEM.
3. STOP HOT WORK - PULSING TONE FOR TEN-SECONDS TO BE REPEATED AS NEEDED, AUGMENTED BY ANNOUNCEMENT OVER THE LOUDSPEAKER SYSTEM.
4. EVACUATION - STEADY TONE FOR TEN-SECONDS TO BE REPEATED AS NEEDED, AND ANNOUNCEMENT OVER THE LOUDSPEAKER SYSTEM. WHEN THE EVACUATION SIGNAL IS GIVEN, ALL PERSONNEL NOT ENGAGED IN THE FIRE FIGHTING ACTIVITIES WILL IMMEDIATELY BUT IN AN ORDERLY MANNER, EVACUATE THE SHIP AND MEET WITH THEIR SUPERVISOR IN THE VICINITY OF THE LOWER END OF THE BROW OR GANGWAY. WHEN DESCENDING FROM RAMPS, GANGWAYS, AND/OR STAIRS, PLEASE USE THE RIGHT HAND SIDE SO THAT OUR FIRE FIGHTERS CAN GAIN ACCESS TO THE FIRE.

OCCASSIONALLY FIRE DRILLS MAY BE CONDUCTED. THE PURPOSE OF FIRE DRILLS ARE BASICALLY TO KEEP YOU INFORMED AS TO THE PROPER MEANS OF ESCAPE. ESCAPE ROUTES ARE POSTED ON THE SHIPS BULKHEADS, ADHERE TO THEM AND KNOW THEM. THE LIFE YOU SAVE MAY BE YOUR OWN. WE CAN TRAIN YOU AND TEACH YOU THE PROPER MEANS OF EGRESS BUT THE WHOLE KEY IS - DO YOU WANT TO LEARN AND DO YOU CARE?

NOTE: THE ABOVE SAFETY SUGGESTIONS ARE ONLY A FEW OF THE MANY THAT COULD BE MENTIONED. MOST OF THE SAFETY HAZARDS ARE CAUSED BY INDIVIDUALS AS THEY WORK. WE ASK THAT ALL OF YOU MAKE SAFETY YOUR JOB. IF YOU SEE SOMETHING THAT IS OR LOOKS UNSAFE. PLEASE NOTIFY YOUR SUPERVISOR IMMEDIATELY SO THAT CORRECTIVE ACTION CAN BE TAKEN. SAFETY IS A TEAM EFFORT SO LETS BE A GOOD TEAM.

"NEVER TAKE THAT CHANCE: IT'S TOO COSTLY"

SAFETY ATTITUDE

Following are some thoughts on the subject of Safety Attitude. These comments are basic and fundamental. Almost anyone commenting on these basic attitude principles would say, "well, any fool knows that." Herein lies the Problem. Just knowing is not enough; however, knowing and then acting upon that knowledge with a positive "Can do" attitude is what marks a winner. For example, look at NASSCO's Can Do attitude towards quality and production. Safety attitude forms what could be called the backbone of any safety program, new or old. In comparing a negative attitude in a safety program to the building of a ship, it would be like not including a rudder prior to delivery. If these basic points are not driven home and adhered to, the safety program just-sort of drifts around off course. Addressed to all supervisors, these-basic points are as follows

1.: The negative attitude.

The negative or wrong attitude is one that conveys the message:- "This safety-business is not my idea but something that the company, my boss, or the Safety Department dreamed up; you know that I don't agree with it, after all, I am on your side. It is mostly just a waste of time, but because I have to go through the motions, here it is."

There are probably a hundred ways that the above negative message can be conveyed; following are a few:

- a) Expressed outright..
- b) Implied in a verbal message (sometimes very subtle)..
- c) By actions, and they do indeed speak louder than words..

No matter how the negative attitude described above is conveyed, it is 100% guaranteed to produce zero benefits for

- a) The employee-
- b) Yourself
- c) Your boss
- d) Your Company.

2. The positive attitude.

The positive attitude is a sincere personal and consistent commitment to prevent or lost time injuries. **The Company** you work for has every right, and does expect you to **convey the above** positive approach to Safety.

To convey the sincere, positive message described above does **not require** a college degree in psychology of human behavior. It seems ~~that there~~ is hardly anything that people pick up, faster from other people can insincerity. So the answer to how to convey the positive message is very simple. It just takes an honest, sincere-effort on your part.

Are there any-benefits to be derived from honest, sincere, positive approach? You bet there are:

- a) The employees . They can avoid suffering and injury. They do not lose time. Helping them to avoid crippling-injury is also helping their families. There are many more benefits for the employees who avoid injury.
- b) Yourself - Satisfaction in properly performing your job and helping to prevent injury to the employees you supervise. You become a more valuable asset to your boss and your Company.
- c) Your boss - You are telling your boss that you are supervising your employees in the performance-of their work in a safe manner, and that he does-not have to worry about your holding up your end.
- d) Your Company. - You are performing your in the manner expected. of you. You are helping your Company avoid liability for injuries. You are helping to keep good, experienced People on their jobs and prevent expensive retiring and training. All in all, you are helping your Company to stay more competitive in obtaining new business and therefore maintaining the present workforce, or perhaps increasing employment.

Housekeeping Attitude

Look around your area and take a common-sense approach to housekeeping. Are you asking your people, on a daily basis, to continually walk over unnecessary tripping hazards? If so, clean them up. Don't let accumulations of scrap and debris pile up. Order scrap boxes and clean out accumulations. Poor housekeeping not only looks bad, it has a tendency to breed other types of sloppy-work practices. Walkways throughout the yard should be kept clear of protruding material and debris, and should be clearly marked off.

Caution

There is a caution that everyone should be applying when carrying out a good, aggressive safety program: Avoid any possibility of being accused that safety is used as a club or a way to get at someone, or to harass someone. Again it is a very simple matter to avoid this by just adhering to an honest; sincere, positive approach.

Accountability

~~It is your personal attitude towards safety, your personal commitment to the Company safety policy that you will be held accountable for, not necessarily the statistics or numbers. In other words, it is your sincere, positive effort that is expected and required.~~

SECTION 3

3.0 FACILITIES AND EQUIPMENT

3.1 Shop Layout and Production Equipment

The next enclosed page shows a pictograph of the shop and a list of the major equipments.

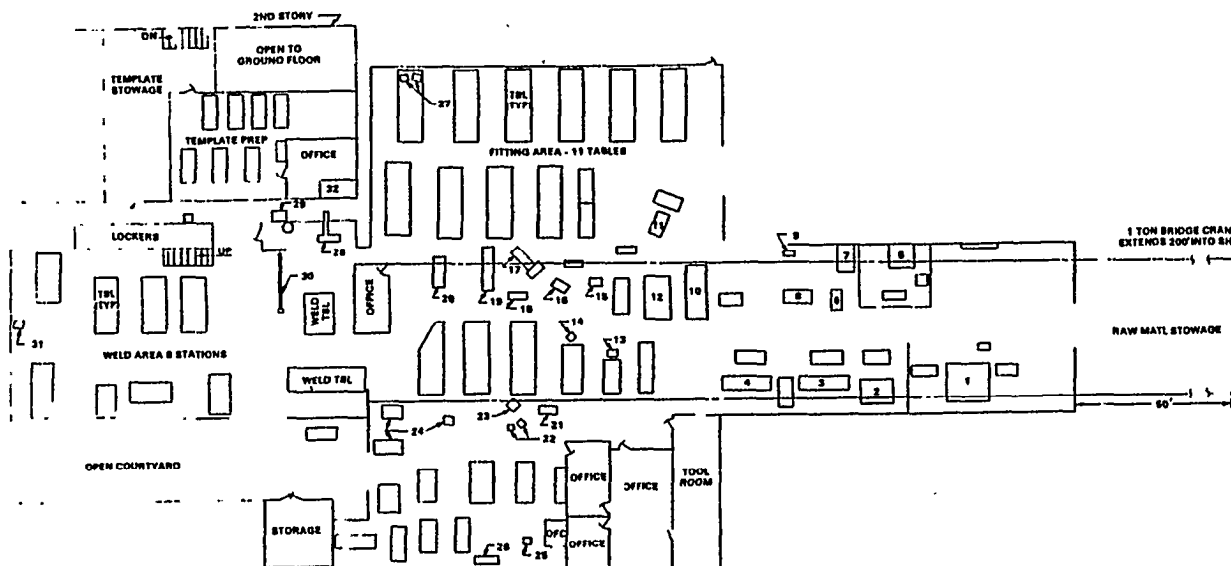
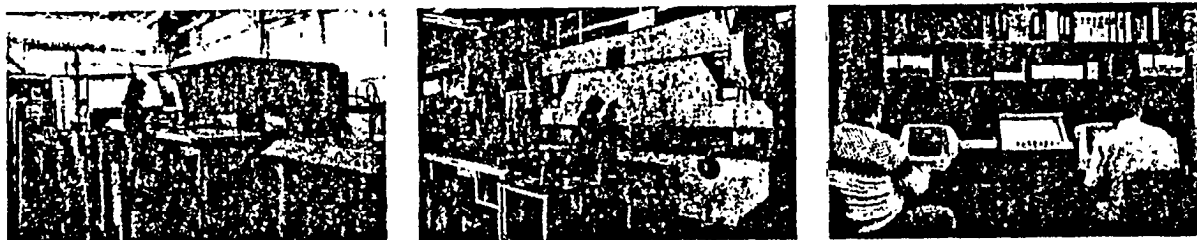
3.2 Material Handling Equipment

A dedicated fork lift truck using pallets is the common way to handle the completed ventilation components. The components go first to painting which is an outside area downwind from the shop and then to a staging area.

nasco

EXHIBIT 1-61
SHEETMETAL SHOP LAYOUT

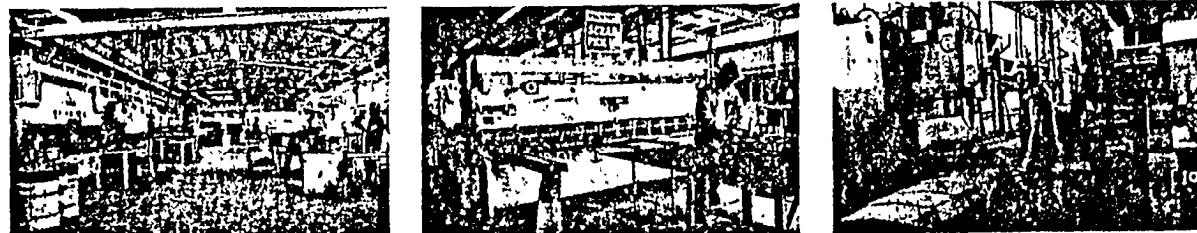
3.0 FACILITIES AND EQUIPMENT



*NOTE: SHAPES WITHOUT ASSIGNED NUMBERS ARE WORKTABLES.

LIST OF EQUIPMENT

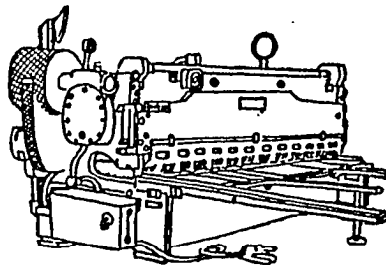
- 1 WHITNEY 6470 PANELMASTER
- 2 WHITNEY 636A DUPLICATOR
- 3 12 FT. HYDRAULIC PRESS BRAKE
- 4 12 FT. MECHANICAL PRESS BRAKE
- 5 N/C DRILLMASTER
- 6 RADIAL DRILL
- 7 BANDSAW
- 8 PRESS BRAKE
- 9 GRINDER
- 10 1/4" X 14' SHEAR
- 11 SPOT WELDER
- 13 1/16" X 8' SHEAR
- 13 EDDER
- 14 FLANGER
- 15 FORMER
- 16 PITT SOURGH FORMER
- 17 NIBBLER
- 18 LOCKFORMER
- 19 CORNICE BRAKE
- 20 PAN BRAKE
- 21 4 FT. LEAF BRAKE
- 22 DRILL PRESS
- 23 NOTCH PUNCH
- 24 BANDSAW
- 25 ROD BENDER
- 26 CUT.OFF SAW
- 27 MID WELDERS
- 28 IRON WORKER
- 29 SANDBLAST CABINET
- 30 1 TON JIB CRANE
- 31 GRINDER
- 32 NUMERIDEX LC.6000
- 2 TERMINALS AND PLOTTER



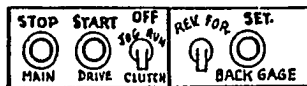
SHOP MACHINES

ALL MACHINES PERFORM SETTER AND SAFER WHEN OPERATED PROPERLY. IF YOU DON'T KNOW HOW - SEE YOUR FOREMAN FOR INSTRUCTIONS BEFORE STARTING.

SHEARS



42



DO NOT ATTEMPT TO SHEAR IN JOG POSITION. TURN CLUTCH TO OFF WHEN NOT SHEARING.

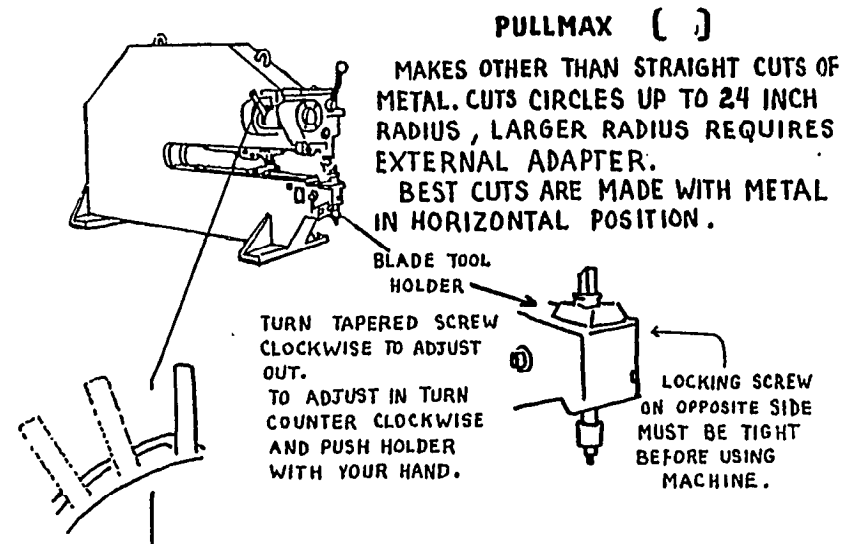
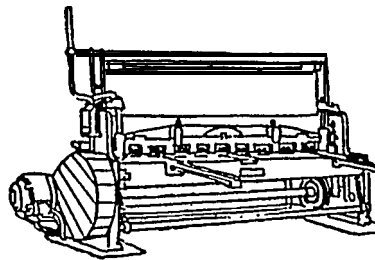
LODGE AND SHIPLEY (745)
SHEARS METAL SHEETS AND PLATES. MAXIMUM CAPACITY: 1/4 INCH MEDIUM STEEL. SHEAR IS NORMALLY SET TO SHEAR 1/16 INCH TO 1/8 INCH THICKNESS, HAVE MACHINE OPERATOR MAKE ADJUSTMENTS, FOR THINNER OR THICKER METALS. MOTOR DRIVEN BACKSTOP IS FOR MULTIPLE CUTS UNDER 36 INCHES. KEEP FINGERS OUTSIDE OF GUARDS. ALWAYS HAVE METAL UNDER HYDRAULIC HOLD DOWN WHEN SHEARING. KEEP HANDS

CLEAR OF THIS CLAMPING ACTION. USE MIRRORS TO SEE THAT NO ONE WILL BE HIT BY WORKING OF SHEAR OR FALLING OF METAL. USE OVERHEAD CRANE OR GET HELP WHEN PLATES ARE HEAVY. THE GREEN LIGHT ON THIS MACHINE CAST A SHADOW FOR SHEARING TO YOUR CUT. LINES.

WYSONG (772)

SHEARS SHEET METAL AND IS SIMILAR IN OPERATION TO THE LODGE AND SHIPLEY. HAS MANUALLY OPERATED BACKSTOP.

MAXIMUM CAPACITY: 1/16 INCH MEDIUM STEEL.



LENGTH OF STROKE ADJUSTMENTS
UP FOR SHORT STROKE (THIN METAL)
MID-POINT FOR LONGER STROKE (THICKER METAL)
DOWN FOR LONGEST STROKE 3/16 INCH MEDIUM STEEL

SEE THAT METAL IS HELD SECURELY, DO NOT ALLOW METAL TO RATTLE IN THE BLADES, THIS CAN DO DAMAGE TO YOUR HANDS, THE MACHINE AND THE METAL YOU ARE CUTTING.

BUFFALO IRON WORKER (704)

SHEARS ANGLE, FLAT, ROUND AND SQUARE BAR.

THIS MACHINE ALSO NOTCHES AND COPES

MAXIMUM CAPACITY : (IN INCHES)

ANGLE BAR.....4 X 4 1/2

FLAT BAR..... 5/8 X TO 1/4 X 93/8

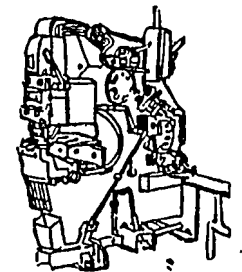
ROUND BAR..... 15/8 DIAMETER

SQUARE..... 1 1/2 X 1 1/2

ANGLE BAR CAN BE SHEARED AT ANGLES OTHER THAN 90°

MAXIMUM CAPACITY: 3X3 X 5/18 AT 45 DEG MI

HOLD DOWN CLAMPS MUST BE USED TO SECURE METAL BEFORE ATTEMPTING TO SHEAR.



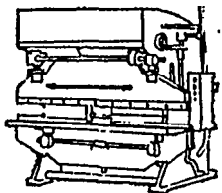
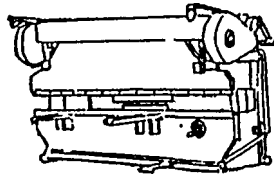
POWER PRESS BREAKS (BENDING)

20
ON

STURDY BENDER [730]
(MACHINE OPERATOR ONLY)

† CINDIN NATI

ENDS FLATTENS AND SHAPES METAL
MAXIMUM CAPACITY: 1/8 INCH AT 14 FEET.



35
TON

DIACRO PRESS BRAKE [705]
(MACHINE OPERATOR ONLY)

UP TO 16 GAGE FITTINGS FORMED HERE
MAXIMUM CAPACITY: 1/16 INCH AT 8 FEET.

E DIAMOND 30 PRESS BRAKE [760] IS USED TO FORM VARIOUS
NGER STRAPS.

43

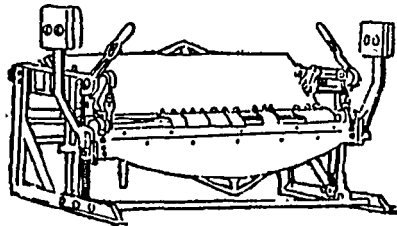
LEAF AND BOX BRAKES

MANUALLY OPERATED TO BEND
FORM SHEET METAL.

MAXIMUM CAPACITY: 16 GAGE.

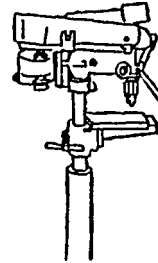
ADJUST SIDE LEVERS FOR
MEN CLAMPING.

LOW ONE METAL THICKNESS BETWEEN UPPER CLAMPING
ART AND EDGE OF HINGED LEAF. A T L E A S T



TE: A BASIC FACT IS THAT METAL HAS THICKNESS AND
THIS THICKNESS MUST BE CONSIDERED AND ALLOWED
FOR ON ALL BENDING AND FORMING OPERATIONS.

DRILL PRESSES



DRILLS HOLES USING DRILL BITS OR HOLE-SAWS.
MATERIAL BEING DRILLED MUST BE CLAMPED
OR OTHER WISE SECURED.

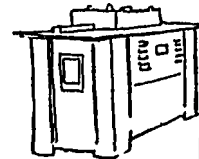
DO NOT LEAVE KEY IN CHUCK.

SPEED (RPM) CAN BE DIALED ON TWO VARIABLE
SPEED PRESSES - OTHERS REQUIRE CHANGING
BELT LOCATIONS ON THEIR PULLEYS. DISCONNECT

POWER BEFORE ATTEMPTING TO CHANGE THE BELT.

LOCKFORMERS [748,743,742]

PITTSBURG LOCK IS FORMED
ON THESE MACHINES.

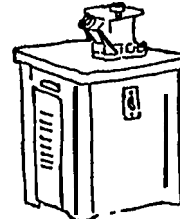


[748] 16 GAGE MAXIMUM CAPACITY.

[743] 18 GAGE MAXIMUM CAPACITY.

ALSO FORMS 18 GAGE PIPE LOCK.

[742] 20 GAGE MAXIMUM CAPACITY- ALSO FORMS
1/4 INCH FLANGE UP.

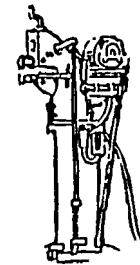


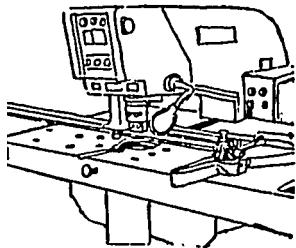
LOCKFORMER EDGER [754]

FORMS 1/4 INCH FLANGE ON OTHER
THAN STRAIGHT EDGES.

PEXTO FORMER [757]

THIS MACHINE USED BASICALLY
TO FORM LAP OUT AND LAP IN.
SHRINKS DIAMETER OF ENDS OR ROUND
DUCT BY CORRUGATING THEM. FORMS,
BEADS, AND ROLLS EDGES. SMALLER
HAND OPERATED FORMERS DO THE
SAME WOKK ONLY ON THIN METAL.





PUNCH PRESS

WHITNEY DUPLICATOR [706]

(MACHINE OPERATOR ONLY)

PUNCHES HOLES IN METAL

MAXIMUM THICKNESS 1/4 INCH AT 2 INCH DIAMETER

MAXIMUM DIAMETER 5 INCHES AT 1/8 INCH THICKNESS

FORMS LOUVER OPENINGS.

SLOTING AND CUTTING CAN BE DONE HERE.

THE BUFFALO IRON WORKER ALSO HAS PUNCH CAPABILITY,

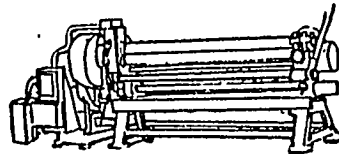
MAXIMUM 1 1/2" DIAMETER AT 5/8" INCH THICKNESS.

TWO OTHER POWER PUNCHES #720 SMALL AND #516 MID.

NOTE: THERE ARE SEVERAL BENCH MOUNTED PUNCHES THROUGHOUT SHOP.

SLIP ROLLS

VARIOUS SIZES AND CAPACITIES ARE FOUND IN THE SHOP. ALL WILL ROLL METAL INTO CYLINDERS AND ALLOW CYLINDER TO SLIP OFF THE END OF THE TOP ROLL.



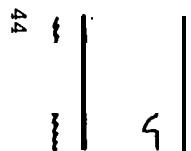
ROUND BAR AND CONE SHAPES CAN BE FORMED HERE.

POWER DRIVEN ROLLS ARE DESIGNED TO SHUT OFF WHEN

FINGER IS REMOVED FROM SWITCH (DEAD MAN SWITCH). NO GLOVES,

R LOOSE CLOTHING ARE PERMITTED BECAUSE OF THE POWERFUL INCH POINTS ON THESE MACHINES.

BAND SAWS



STEEL

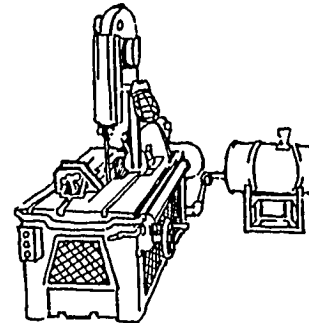
ALUMINUM AND
OTHER SOFT
METALS

(VARIABLE SPEEDS)

[SLOWER] [FASTER]

WHEN INSTALLING BAND SAW BLADES, TEETH MUST FACE OPERATOR AND TURN DOWN TOWARD METAL BEING CUT

BLADE GUIDES ARE ADJUSTABLE FOR HEIGHT AND SHOULD BE RAISED NO HIGHER THAN NECESSARY TO JUST CLEAR THE WORK.



MARVEL 8 BAND SAW [10093]

SIMILAR TO OTHER BAND SAWS WITH THESE ADDED FEATURES

1) METAL BEING CUT CAN BE QUICKLY CLAMPED.

2) BLADE CAN BE POSITIONED 45° TO EITHER SIDE OF VERTICAL.

3) VARIABLE SPEED.

4) SAVES DRY OR WITH COOLANT.

5) HAND OR SELF FEEDING FEATURE.

ABRASIVE SAWS

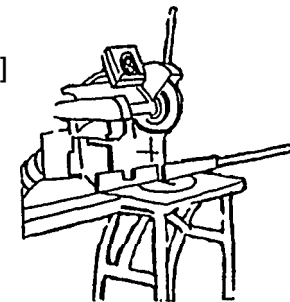
BRILLIANT ABRASIVE SAW [10292]

CUTS BY GRINDING A NARROW SLOT THROUGH METAL. USED TO CUT SHAPES - **NOT SHEETS OR PLATE.**

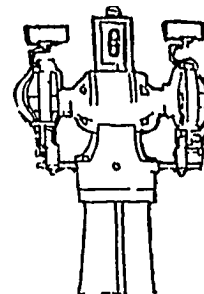
SHAPES BEING CUT MUST BE SECURELY AND EVENLY HELD, TO **PREVENT** BINDING OF SAW BLADE.

THE BRILLIANT ABRASIVE SAW HAS A 14 INCH BLADE **AND MAKES** ANGLE CUTS UP TO 45°. DUST EXHAUSTER MUST BE ON BEFORE THIS **SAW WILL OPERATE.**

THE MERCURY (734) ABRASIVE SAW MAKES SQUARE CUTS ONLY WITH A 20" BLADE.



GRINDING



PEDESTAL GRINDERS (AND DISC SANDERS) ARE USED PRIMARILY TO **REMOVE SMALL AMOUNTS OF METAL, TO DEBURR, TO TRUE UP AN IRREGULAR EDGE.**

MAKE SURE TOOL RESTS ARE ABOUT 1/16 INCH FROM WHEEL OR DISC.

DO NOT GRIND ON SIDES OF WHEELS. GRIND ON HIGH SPOTS TO KEEP SURFACE WEAR EVEN.

(DO NOT GOUGE).

FACE SHIELDS ARE REQUIRED ON ALL GRINDING OPERATIONS.

SECTION 4

4.0 LAYOUTS AND MATERIAL FLOW

4.1 Work Areas

In the several volumes describing the various standard shapes and the MOST-Analysis, you will find descriptions of the various FIT and WELD work places.

4.2 Material Flow

The material used consists of 4x8 sheets ranging from 45 to 165 pounds each (see Section 1.3). These are stacked in a rack outside of the sheetmetal shop. As the fitters or layout people need material they procure a transfer cart, go out to the stock rack and load on the cart one or more sheets for moving to their bench.

Completed assemblies are usually moved on pallets with a fork truck.

SECTION 5

5.0 PROCESS DATA

5.1 Derivation of Process Times

The processes that are timed and used are rather short and do not consume much of the total. They are:

1. Plasma arc cutting on the Whitney Panel Master where the process time is known and programmed in by the CNC personnel.
2. Seam welding. When the analyst observes this process, the traverse time can be recorded. A digital indicator on the machine given the inches per minute weld speed.

5.2 Technical Processes

The various technical processes used are determined by the product and by the machines required. A typical ventilation manufacturing cycle goes like this:
like this:

1. The part is planned and included in a sketch for shop instructions, dimensions, material thickness, etc.
2. If complicated a paper pattern is layed out to assist in determining the flat stretch out. Sometimes, as with a simple square section duct the fitter lays out his own work. Also, if planned for the CNC, the layout work is essentially done as part of the cutting process in the CNC machine. This is one of the real labor-saving aspects of a machine like the Whitney Panel Master-that de facto layout, marking, and cutting are all done as one quick part of the manufacturing process.
3. The sheetmetal is sheared to the proper size.
4. If not CNC, the material is "marked out" showing outline, bend lines, part number, etc.
5. The piece(s) is cut to the proper outline using a power shear, hand shear (powered unishear), nibbler, or punch.
6. The piece(s) are formed in the brake (press or hand) or roll former and/or lock seam machine.
7. The fitter assembles the pieces into a 3-D shape using tack welding, Pittsburgh joints, riveting, etc.

9. The individual shapes are combined with other shapes or at the ends, temporarily attached flanges.
10. The part is inspected and goes to get painted.

5.3 Tool Life

Tool life doesn't figure much in sheetmetal processes, but shear blades drills, punches, etc. do have to be sharpened or replaced on occasion. The foreman is responsible for this.

SECTION 6

6.0 MANUAL METHODS

6.1 Manual Methods

The manual methods, all listed in the backup data are described in great detail in the MOST-Analyses. Both the step by step manual method, referring to the Work Area Layout, and the MOST analysis, is listed for all of the standard shapes. Also information is included to add flanges, rivet to another shape, add access covers, end caps, and so on.

SECTION 7

7.0 STANDARD TIME CALCULATION

7.1 Standard Data

For ease and convenience of use we worked up a chart, in conjunction with the people who will use the standard time, of the standard shapes and the appropriate standard time. A rather extensive analysis was made of past history of the yard (only a rough guide) as to the use and sizes of the standard shapes. As there was an expected tendency of the sizes to cluster around certain categories we plotted our data in hystograms in order to get the representative sample. For example we found groupings around areas of less than 100 square inches and more than 100 square inches. Using this and other criteria we developed a chart that is based on the users requirements and with an estimated accuracy of better than 10% - plenty good enough for our needs.

7.2 How to Calculate Time Standards

Refer to the next two pages for our instruction sheet and "Sheetmetal Sketch Standard Data."

7.3 Manning, Crew Size, and Job Classes

The shop is run by a general foreman with several foreman reporting to him. The foreman is an exempt, salaried position. Reporting to the foreman are working foremen, leadmen, and journeymen - all non-exempt jobs. The basic sheetmetal "fitter" fabricates from drawings and templates and operates certain shop equipment as assigned. The journeyman welders are assigned to the sheetmetal shop for welding operations. They don't usually weld until the unit is fitted and tacked in position.

SHEETMETAL SKETCH

STANDARD DATA INSTRUCTIONS

1. Use a new sheet for each sketch,
2. Fill in part number, etc.
3. Circle the standard hour values that come closest to the shapes on the sketch. Use frequency to allow for more than one similar part.
4. Add time for' riveted joints, flange attachment, etc.
5. Total up, multiply by 1.15 to get standard time. NOTE: While this 15% adder for personal time, "relaxation allowance," unavoidable delays, and cleanup time may change, the concept of standard time does not change except to correct for errors.
6. Multiply by this years achievability factor, let's say 2.0 for example, to get target time for shop loading. This will change next year as we improve our efficiency.

STANDARD TIME: The time which is determined to be necessary for a qualified journeyman, working at a sustainable pace (8-hour day), with capable' supervision, with all tools and material required, to do a defined quantity of work.

STANDARD DATA: A published compilation of standard time values for well-defined and coded elements. Usually based on a visable, tangible, output item.

SHEETMETAL SKETCH STANDARD DATA V6 -

IN STANDARD HOURS

By _____
Date _____

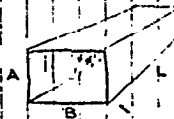
OPERATION

FREQ TOTAL

Transport material $\pm 10 + .007 \times \text{No. of sheets}$

• NO. 2 STRAIGHT SECTION (S) MAKE T.F.T

Area AxB	20 IN	40 IN	>40 IN
TO 100 D	.25	.29	.40
> 100 D	.29	.35	.49
HAND WELDED SEAM	.37	.55	.69
			.46



• #1 TRANSFORMERS

RECTANGULAR

AREA	20 L	75 40	OFFSET
to 100 D	.46	.51	.35
> 100 D	.29	.55	.57
HAND WELDED	.37	.54	.58

MAKE T.F.T



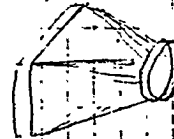
• #7 (Rectangular) ELBOWS, 45° - 90°

AREA		
≤ 100 D	.61	AREA 20 LONG
> 100 D	.98	AREA 30 LONG
HAND WELDED	3.3	(15 x 40 inches)



• TRANSITIONS #3

LARGEST AREA	SQ to D	#6 to D 0.61	#11 to F0
≤ 100 D	.75	.85	1.02
> 100 D	1.20	1.54	1.34
HAND WELDED	.93	.80	.65



TRANSITIONS

AREA	#10 F0 to D	#9 to D	#40 to 0
≤ 100 D	1.16	.91	.93
> 100 D	1.35	1.43	1.48
WELDED	1.64	1.00	1.12



• #13 OFFSETS, #12 OGEE

AREA	SHORT OFFSET	LONG OFFSET	OGEE
≤ 100 D	.68	1.32	.73
> 100 D	1.16	1.38	1.00
WELDED	1.09	1.68	.79



• #8 VANED ELBOW

#14 BELL MOUTH

AREA		
≤ 100 D	2.07	1.29
> 100 D	4.26	1.34



• #4 ROUND RECT.

• #5 CORRD ROUND FLAW

LARGEST	20 L	40 L	80 L	FLUOW
1/4 4" DIA	.33	.47	.57	1.2
3/4 6" DIA	.36	.48	.60	2.0

OTHER OPERATIONS:

AREA	ATTACH FLANGES	ATTACH BRACKETS	ACCESS HOLE & COVER	BLANK ENDS
≤ 1100 D	.18	.05	.12	.63
> 100 D	.41	.05	.12	1.07

SPECIAL

NORMAL TIME - HOURS
PERSONAL, FATIGUE, & UNAVOIDABLE DELAY

STANDARD TIME

MULTIPLY BY 2.0 FOR 1983 ATTAINABILITY

TARGET TIME

1.15

x 2.0

HR

SECTION 8

8.0 DATA SYNTHESIS AND BACKUP

8.1 Summary

This was explained in Section 6.1 and 7.2.

SECTION 9

9.0 ALLOWANCES

9.1 General

Allowances have been arbitrarily set, for this Work Management Manual, at 15%. This will be reviewed in the future. The allowance is further subdivided to:

- 10% Personal: Forty-eight (48) minutes are allowed per day for cleaning up, going to the toilet, etc.
- 2.5% Fatigue: It is understood that at times the work is physically demanding. An allowance of twelve (12) minutes a day is allowed for resting.
- 2.5% Delay: Occasionally there will be delay at the stockroom, or a machine, and twelve (12) minutes a day (average) are allowed for this.

Sheetmetal work, by its very nature is not very fatiguing, nor beset with delays. Often the fitters can observe the activity around him and mesh their time properly to avoid delays.

In practice, our standard time is built on the expectation of 6.96 hours a day of normal work and a little more than an hour (1.04 hours) allowed for personal, fatigue and expected delay.

APPENDICES

A. GLOSSARY OF TERMS

(A glossary of terms peculiar to local sheetmetal work)

Blackpen	A heavy duty felt-tipped marking pen.
Cpunch	Center punch.
Drillmotor	Erroneously called an electric drill. A portable drill motor chucks and turns a twist drill.
Extention	When a square or round straight section is made part of a conventional shape. For example an extension is often made part of an ell with no more separate pieces of sheetmetal.
Lapout	A powered Pexto machine that forms a 1/16 x 1" offset collar on the end of a piece of duct. This outside offset facilitates the forming of a lays joint. In ventilation equipment the lapout joint is usually the downstream piece. See page 47 (machine number 757).
Redpen	A heavy duty felt-tipped marking pen.
Shapes, Standard shapes	See Section 1.2.
Stinger	The electrode holder of a welding machine.
Template	A pattern (flat outline) of the developed sheetmetal part made out of heavy paper or metal. They are used to guide the tracing of the outline on the metal - called the <u>stretch out</u> before forming.
Unishear	A powered hand-operated sheetmetal cutting shear. Will cut rounded or straight cuts.
Visegrip	A clamping type pair of pliers.
Weldor	The journeyman who does the welding.
Welder	A power supply and machine system to perform arc welding.

APPENDIX B

SAMPLE OF FORMS

SAMPLE FORM INSPECTION

NATIONAL STEEL AND SHIPBUILDING COMPANY
San Diego, California

Department or Area _____ Hull. No. _____ Date _____

Sketch V6- _____ PKG. V2- _____ Drawing No. _____

For the following items place a check (✓) mark in either the Accept or Reject column and N/A for not applicable. If unsatisfactory - place a check (✓) in the reject column and indicate corrective action.

Nature of Observations	Accept	Reject	No. of Deficiencies	Nature of Defects	Nature of Corrective Action
FABRICATION					
1. Fabricated in Accordance with applicable drawings. (Includes Flanges)					
2. Ducts, Elbows, Etc. Fair and Smooth inside.					
3. Welds to leave a neat uniform appearance, free of excessive slag and spicles					
4. Dampers, splitter and deflectors hammered on leading edge.					
4. Total Observations.					

REMARKS:

SIGNATURE SHOP SUPERVISOR _____

SIGNATURE Q.A. INSPECTOR _____

Back-up MOST Analyses

TRANSPORTATION

T MARKOT.M00

File Description ? LOAD SHEETMETAL ON CART

Output to line-printer <Y or N> ? N

(39, 3)

FIT W04

MAREOT. MOO

LOAD SHEETMETAL FOR TRANSPORT WITH CART AT SHEETMETAL SHOP

PER SHEET

OFG: 3 22-FEB-83

4x8 - 16 GAUGE SHEETMETAL

* 2 OPERATORS USED FOR LOADING

FITTER BEGINS AT SHEETMETAL-STORAGE

1 PLACE SHEETMETAL2 (1 SHEET) FROM SHEETMETAL-STORAGE
TO CART AT SHEETMETAL-STORAGE F 2

A1 B0 G1 A1 B0 P3 A0 2.00 120.

2 POSITION SHEETMETAL FROM CART WITH 2 STEPS AT
WORKTABLE TO WORKTABLE WITH 8 STEPS

A3 B3 G1 A6 B0 F6 A0 1.00 290.

3 POSITION SHEETMETAL FROM WORKTABLE TO CART AT
WORKTABLE WITH 8 STEPS

A1 B0 G1 A16 B0 P6 A0 1.00 240.

TOTAL TMU 450.

Type D, EH, CT, EX, T, W <or H for help> ? T MARKOT, MO1

File Description ? TRANSPORT FOR MARK CUT

Output to line-printer <Y or N> ? N

(39, 3)

FIT W04

MARKOT, MO1

TRANSPORT SHEETMETAL FOR MARK CUT AT SHEETMETAL SHOP

PER SKETCH

OFG: 4 22-FEB-83

4x8 x 16 GAUGE SHEETMETAL

* METHOD FOR TYPICAL SKETCHES

* USED BY MARK CUT PEOPLE AND FITTERS

FITTER BEGINS AT WORKTABLE

1 MOVE TEMPLATES FROM WORKTABLE (TEMPLATE STORAGE RACK)
TO WORKTABLE WITH 40 STEPS

A1 B0 G1 A67 B0 F1 A0 1.00 700.

2 MOVE CART FROM TOOLROOM (RANDOM SHOP LOCATIONS) TO
SHEETMETAL-STORAGE

A96 B0 G1 A113 B0 F1 A0 1.00 2110.

3 MOVE CART FROM SHEETMETAL-STORAGE TO WORKTABLE PF 2 (4

A1 B0 G1 (A152) B3 F1 A0 (2) 1.00 3100.

4 MOVE CART FROM WORKTABLE TO MARKOUT-STORAGE PF 2 (4)

A1 B0 G1 (A67) B0 P1 A0 (2) 1.00 1370.

5 MOVE CART FROM WORKTABLE TO MARKOUT-STORAGE PF 2 (4)

F 2 / 3

A67 B3 G1 (A67) B0 P1 A0 (2) 0.67 1373.

6 MOVE CART FROM TOOLROOM (RANDOM SHOP LOCATIONS) TO

MARKOUT-STORAGE

A54 B0 G1 A54 B0 F1 A0 1.00 1100.

7 MOVE CART FROM MARKOUT-STORAGE (WITH MARKED CUT
SHEETMETAL) TO WORKTABLE PF 2 (4)

A1 SO G1 (A67) B3 F1 A0 (2) 1.00 1400.

TOTAL TMU 11153.

SHEETMETAL SHAPE # 1

8x6 to 10x4x16" LG TRANSFORMER

FAB	31150
MARK OUT	14770
TOTAL	45920

File Description ? MARK OUT SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N

```

39, 3)
FIT .W11 TRANSF.M90
MARK OUT SHEETMETAL FOR TRANSFORMER WITH AWL AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 01-JUL-83
NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 8"X6" TO 10"X4"X16" LG
* MARK OUT USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 3 STEPS
                                A1 BO G1 A6 BO P6 A0      1.00      140.
2 PLACE WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE
  WITH 3 STEPS F 2
                                A1 BO G1 A6 BO P3 A0      2.00      220.
3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
                                A1 BO G1 (A1 BO P1 R16) A1 BO P1 A0 (8) 1.00      1480.
4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE
  F 4
                                A1 BO G1 A1 BO P6 A0      4.00      360.
5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
  HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
                                A1 BO G1 (A1 BO PO F3) A1 BO P1 A0 (4) 1.00      200.
6 REPLACE WEIGHT FROM TEMPLATE TO WORKTABLE WITH 3 STEPS
                                A1 BO G1 A6 BO P3 A0      1.00      110.
7 REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE WITH 3
  STEPS
                                A1 BO G1 A6 BO P3 A0      1.00      110.
8 PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 3 STEPS
                                A1 BO G1 A6 BO P3 A0      1.00      110.
9 MARK CORNERS FROM CORNER TEMPLATE TO SHEETMETAL AT
  WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF
  1 6 ( 4 5 6 7 )
                                A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (16) 1.00      840.
10 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
  USING REDPEN AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )
                                A1 BO G1 (A1 BO P1 R16) A1 BO P1 A0 (5) 1.00      940.
11 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
  ASIDE PF 47 ( 4 5 6 7 )
                                A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (47) 1.00      2390.
12 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 ( 4 5 6 7 )
                                -A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (34) 1.00      1740.

                                TOTAL TMU      8640.

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File Description ? MARK OUT SHEETMETAL TOP FOR TRANSFORMER

Output to line-printer <Y or N> ? N

39, 3)
 FIT .W11 TRANSF.M91
 MARK OUT SHEETMETAL TOP FOR TRANSFORMER WITH AWL AT SHEETMETAL
 SHOP
 PER TRANSFORMER OFG: 4 21-JUN-83
 NASSCO SHEETMETAL SHAPE 1
 * 20 GAUGE GALV. SHEETMETAL
 * 8"X6" TO 10"X4"X16" LG
 * MARK OUT USING TEMPLATE
 FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS	A1 BO G1 A6 BO P6 A0	1.00	140.
2	PLACE WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH.3 STEPS	A1 BO G1 A6 BO P3 A0	1.00	110.
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)	A1 BO G1 (A1 BO P1 R16) A1 BO P1 A0 (3)	1.00	580.
4	REPLACE WEIGHT FROM TEMPLATE TO WORKTABLE WITH 3 STEPS	A1 BO G1 A6 BO P3 A0	1.00	110.
5	REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE WITH 3 STEPS	A1 BO G1 A6 BO P3 A0	1.00	110.
6	PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)	A1 BO G1 (A1 BO P3 A0)	1.00	180.
7	MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)	A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (8)	1.00	440.
8	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)	A1 BO G1 (A1 BO P1 R16) A1 BO P1 A0 (4)	1.00	760.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 20 (4 5 6 7)	A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (20)	1.00	1040.
10	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 (4 5 6 7)	A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (34)	1.00	1740.
11	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	A1 BO G1 A6 BO P3 A0	2.00	220.
12	MOVE CART FROM WORKTABLE TO SMALLSHEAR	A1 BO G1 A67 BO P1 A0	1.00	700.
			TOTAL TMU	6130.

File Description ? SHEAR SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 3)

FIT . W 1 1

TRANSF.M92

SHEAR SHEETMETAL FOR TRANSFORMER WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP
PER TRANSFORMER

OFG: 4 21-JUN-83

NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 8"X6" TO 10"X4"X16" LG
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2

A1 BO G1 A6 B0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

A1 BO G1 M1 X6 IO A0 1.00 90.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 8

A1 BO G1 A1 BO P6 A0 8.00 720.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8

A1 BO G1 M1 X6 IO A0 8.00 720.

5 PLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR
WITH 10 STEPS F 2

AL BO G1 A16 BO P3 A0 2.00 420.

6 MOVE CART FROM SMALLSHEAR TO WORKTABLE

A1 BO G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 2960.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

File Description ? SHEAR UNEVEN END OF TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W11

TRANSF.M93

SHEAR UNEVEN END OF TRANSFORMER WITH UNI-SHEAR AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 21-JUN-83

NASSCO SHEETMETAL SHAPE 1

* 20 GAUGE GALV. SHEETMETAL

* 8"X6" TO 10"X4"X16" LG

* USE UNI-SHEAR ON AREAS OF TRANSFORMER-

* -THAT CAN NOT BE CUT WITH 8FT. SHEAR

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS

A1 BO G1 A6 BO P3 A0 1.00 110. ✓

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE

A96 BO G1 A96 B3 P1 A0 1.00 1970. ✓

3 POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS

A1 BO G1 A3 BO P6 A0 1.00 110. ✓

4 OPERATE UNISHEAR AT WORKTABLE PROCESS F 2

A1 BO G1 M6 X173I0 A0 2.00 3620. ✓

5 CUT CORNERS ON SHEETMETAL AT WORKTABLE 1 CUT USING
SNIPS AT WORKTABLE AND ASIDE PF 24 (4 5 6 7)

A1 BO G1 (A1 BO P3 C1) A1 BO P1 A0 (24) 1.00 1240. ✓

6 FASTEN [FLATTEN] SHEETMETAL CORNERS ON SHEETMETAL AT
WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND
ASIDE PF 24 (4 5 6 7)

A1 BO G1 (A1 BO PO F6) A1 BO P1 A0 (24) 1.00 1720. ✓

7 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS

A1 BO G1 A6 BO P3 A0 1.00 110. ✓

8 MOVE CART FROM WORKTABLE TO LAPOUT MACHINE

A1 BO G1 A54 BO P1 A0 1.00 570. ✓

TOTAL TMU 9450.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

12410

OK

File Description ? FORM LAP END FOR TRANSFORMER

Output to line-Printer <Y or N> ? N

(39, 3)

FIT .W11

TRANSF.M94

FORM LAP END FOR TRANSFORMER WITH LAPOUT MACHINE AT SHEETMETAL
SHOP

PER TRANSFORMER

OFG: 4 22-JUN-83

NASSCO SHEETMETAL SHAPE 1

* 20 GAUGE GALV. SHEETMETAL

* 8"X6" TO 10"X4"X16" LG

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 2

A1	BO	G1	A6	BO	P3	A0	2.00	220.
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2 PUSH LAPOUT-SWITCH PROCESS F 2

A1	BO	G1	M1	X16	IO	A0	2.00	380.
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3 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 2

A1	BO	G1	A6	BO	P3	A0	2.00	220.
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4 MOUE CART FROM LAPOUT TO PITTSBURGH

A1	BO	G1	A6	BO	P1	A0	1.00	90.
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TOTAL TMU 910.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

1.3320

File Description ? FORM PITTSBURGH LOCK FOR TRANSFORMER

Put to line-printer <Y or N> ? N

 $(39, 3)$

F1T 0 W11

TRANSF.M95

FORM PITTSBURGH LUCK FOR TRANSFORMER WITH PITTSBURGH MACHINE AT
SHEETMETAL SHOP

PER TRANSFORMER

OFG: 4 22-JUN-83

NASSCO SHEETMETAL SHAPE 1

* 20 GAUGE GALV. SHEETMETAL

* 8"X6" TO 10"X4"X16" LG

FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 2

A1	BO	G1	A6	BO	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

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2 PUSH PITTSBURGH-BUTTON PROCESS F 4
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A1	BO	G1	M1	X32	IO	A0	4.00	1400.
----	----	----	----	-----	----	----	------	-------

3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 2
STEPS F 4

A3	BO	G1	M1	X0	I3	A0	4.00	320.
----	----	----	----	----	----	----	------	------

4 PLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH
WITH 4 STEPS F 2

A1	BO	G1	A6	BO	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

5 MOUE CART FROM PITTSBURGH TO LEAFBRAKE

AL	BO	Gl	A32	BO	P1	A0	1.00	350.
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TOTAL TMU 2510.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for **help** ?

15830

File Description ? BEND SHEETMETAL FOR TRANSFORMER

Output to line-Printer <Y or N> ? N

(39, 3)

FIT .W11

TRANSF.M96

BEND SHEETMETAL FOR TRANSFORMER WITH LEAFBRAKE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 22-JUN-83

NASSCO SHEETMETAL SHAPE 1

* 20 GAUGE GALV. SHEETMETAL

* 8"X6" TO 10"X4"X16" LG

* BEND SIDES OF TRANSFORMER UP 90 DEGREES

FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO
LEAFBRAKE WITH 4 STEPS

A1 BO G1 A6 BO P6 A0 1.00 140.

2 OPERATE LEAFBRAKE-LEVER PROCESS

A1 BO G1 M6 X16 IO A0 1.00 240.

3 POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE

A1 BO G1 A1 BO P6 A0 1.00 90.

4 OPERATE LEAFBRAKE-LEVER PROCESS

A1 B0 G1 M6 X16 IO A0 1.00 240.

5 REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE
WITH 4 STEPS

A1 BO G1 A6 BO P3 A0 1.00 110.

6 MOUE CART FROM LEAFBRAKE TO PANBRAKE

A1 BO G1 A42 BO P1 A0 1.00 450.

TOTAL TMU 1270.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

17,100

File Description ? BEND LAPAP ENDS FOR TRANSFORMER

Output to line-printer <Y or N> ? N

39. 3)

FIT .W11 TRANSF.M97
BEND LAP ENDS FOR TRANSFORMER WITH PANBRAKE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 22-JUN-83
NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 8"X6" TO 10"X4"X16" LG
* KINK UP LAP ENDS FOR TRANSFORMER
FITTER BEGINS AT PANBRAKE

1	POSITION SHEETMETAL2 FROM CART AT PANBRAKE TO PANBRAKE WITH 4 STEPS F 2	A1 BO G1 A6 BO P6 A0	2.00	280.
2	FASTEN [JAWS1 NUST TO SHEETMETAL AT PANBRAKE 5 WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE	A1 BO G1 A1 BO P3 F16 A1 BO P1 A0	1.00	240.
3	OPERATE PANBRAKE-LEVER PROCESS F 2	A1 BO G1 M6 X96 IO A0	2.00	2080.
4	POSITION SHEETMETAL FROM PANBRAKE TO PANBRAKE F 6	A1 BO G1 A1 BO P6 A0	6.00	540.
5	OPERATE PANBRAKE-LEVER PROCESS F 6	A1 BO G1 M6 X96 IO A0	6.00	6240.
6	REPLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE WITH 4 STEPS F 2	A1 BO G1 A6 BO P3 A0	2.00	220.
7	MOUE CART FROM PANBRAKE TO WORKTABLE	A1 BO G1 A54 B3 P1 A0	1.00	600.
TOTAL TMU				10200.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

27300

File Description ? ASSEMBLE TRANSFORMER

Output to line-printer <Y or N> ? N

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39, 3)
FIT .W11                                TRANF.M98
ASSEMBLE TRANSFORMER WITH HAMMER AT SHEETMETAL SHOP
PER TRANSFORMER                        OFG: 4 06-JUL-83
    NASSCO SHEETMETAL SHAPE 1
    * 20 GAUGE GALV. SHEETMETAL
    * 8"X6" TO 10"X4"X16" LG
    * JOIN TOP SECTION TO BOTTOM SECTION --
    * --WITH PITTSBURGH LOCK
    FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS F 4
                                A1 BO G1 A6 BO P3 A0      4.00      440.
2 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORTKABLE 3
  STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5
  6 7 )
                                A1 BO G1 (A1 BO PO F6) A1 BO P1 A0 (4) 1.00      320.
3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL
  [BOTTOM] AT WORKTABLE
                                A1 BO G1 A1 BO P6 A0      1.00      90.
4 PLACE SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 6
                                A1 BO G1 A1 BO P3 A0      6.00      360.
5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
                                A1 BO G1 (A1 BO PO F6) A1 BO P1 A0 (6) 1.00      460.
6 FASTEN SHEETMETAL TO SHEETMETAL AT LWORKTABLE 3 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
                                A1 BO G1 (A1 BO PO F6) A1 BO P1 A0 (6) 1.00      460.
7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
                                A1 BO G1 (A1 BO PO F6) A1 BO P1 A0 (6) 1.00      460.
8 FASTEN [BEND] SHEETMETAL CLAP FLANGES7 AT WORKTABLE 3
  WRIST-STROKES USING HANDFORMERS AT WORKTABLE AND ASIDE
  PF8 ( 4567 )
                                A1 BO G1 (A1 BO P3 F10) A1 BO P1 A0 (8) 1.00      1160.
9 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
                                A0 BO GO A0 BO PO T10 A0 BO PO A0      1.00      100.

                                TOTAL TMU                        3850.

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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

31,150

1

SHEET METAL SHAPE

15" X 9" to 10" X 14" X 18" LG TRANSFORMER

<u>FAB.</u>	<u>34480</u>	<u>20 MIN.</u>
<u>MARK OUT</u>	<u>15360</u>	<u>9 MIN.</u>
<u>TOTAL FMU</u>	<u>49840</u>	<u>29 MIN.</u>

File Description ? MARK OUT SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N

(39,101)

FIT .W12

TRANSF.M20

MARK OUT SHEETMETAL FOR TRANSFORMER WITH AWL AT SHEETMETAL SHOP

PER TRANSFORMER

OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 1

* 20 GAUGE GALV. SHEETMETAL

* 15"X9" TO 10"X14"X18" LG

* MARK OUT USING TEMPLATE

FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS		
	A1 BO G1 A6 BO P6 A0	1.00	140.
2	PLACE WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 3		
	A1 BO G1 A6 BO P3 A0	3.00	330.
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)		
	A1 BO G1 (A1 BO P1 R16) A1 BO P1 A0 (8)	1.00	1480.
4	POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F 4		
	A1 BO G1 A1 BO P6 A0	4.00	360.
5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)		
	A1 BO G1 (A1 BO P1 F3) A1 BO P1 A0 (4)	1.00	200.
6	REPLACE WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS		
	A1 BO G1 A6 BO P3 A0	1.00	110.
7	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS		
	A1 BO G1 A6 BO P3 A0	1.00	110.
8	PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS		
	A1 BO G1 A6 BO P3 A0	1.00	110.
9	MARK CORNERS FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 1 6 (4 5 6 7)		
	A1 BO G1 (A1 BO P1 R3) A1 80 P1 A0 (16)	1.00	840.
10	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)		
	A1 BO G1 (A1 BO P1 R16)A1 BO P1 A0 (5)	1.00	940.
11	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 68 (4 5 6 7)		
	A1 BO G1 (A1 BO P1 R3)A1 BO P1 A0 (68)	1.00	3440.
12	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 (4 5 6 7)		
	A1 BO G1 (A1 BO P1 R3)A1 BO P1 A0 (25)	1.00	1290.
		TOTAL TMU	9350.

TRANS# M.20

File Description ? HARK OUT SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ?

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      utput to line-Printer <Y or N> ? N

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FIT • W12

TRANSF.M21

PER TRANSFORMER

OFG: 4 29-JUN-83

* 20 GAUGE GALV. SHEETMETAL

* 15'X9" TO 14"X10" LG

* MARK OUT USING TEMPLATE

FITTER BEGINS AT WORKTABLE

- | NO | DESCRIPTION | UNIT | QUANTITY | AMOUNT |
|----|--|---|----------|--------|
| 1 | POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS | A1 BO G1 A6 BO P6 A0 | 1.00 | 140. |
| 2 | PLACE-WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS | A1 B0 G1 A6 BO P3 A0 | 1.00 | 110. |
| 3 | MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 3 (4 5 6 7) | A1 BO G1 (A1 BO P1 R16) A1 BO P1 A0 (3) | 1.00 | 580. |
| 4 | REPLACE WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS | A1 BO G1 A6 BO P3 A0 | 1.00 | 110. |
| 5 | REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS | A1 BO G1 A6 BO P3 A0 | 1.00 | 110. |
| 6 | PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4 | A1 EO G1 A1 BO P3 A0 | 4.00 | 240. |
| 7 | MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7) | A1 BO G1 (A1 80 P1 R3)A1 B0 P1 A0 (8) | 1.00 | 440. |
| 8 | MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 3 (4 5 6 7) | A1 BO G1 (A1 BO P1 R16)A1 BO P1 A0 (3) | 1.00 | 580. |
| 9 | MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 20 (4 5 6 7) | A1 BO G1 (A1 BO P1 R3)A1 BO P1 A0 (20) | 1.00 | 1040. |
| 10 | MARK IDENTIFICAITON ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 (4 5 6 7) | A1 BO G1 (A1 BO P1 R3)A1 BO P1 A0 (34) | 1.00 | 1740. |
| 11 | PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2 | A1 EO G1 A6 HO P3 A0 | 2.00 | 220. |
| 12 | MOUE CART FROM WORKTABLE TO SMALLSHEAR | A1 BO G1 A67 BO P1 A0 | 1.00 | 700. |

TOTAL TMU 6010.

File Description ? MARK OUT TOP FOR TRANSFORMER

Output to line-printer <Y or N> ?

File Description ? SHEAR UNEVEN END OF TRANSFORMER

Output to line-printer <Y or N> ? N

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( 39,101)
FIT      >W12                                TRANS.M23
SHEAR UNEVEN END ON 'TRANSFORMER WITH UNI-SHEAR AT SHEETMETAL SHOP
PER TRANSFORMER                                OFG: 4   29-JUN-83
    NASSCO SHEETMETAL SHAPE 1
    * 20 GAUGE GALV. SHEETMETAL
    * 15"X9" TO 10"X14"X18" LG
    FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS F 2
                                A1 BO G1 A6 BO P3 A0          2.00      220.
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
                                A96 BO G1 A96 B3 P1 A0          1.00      1970 .
3 POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 2 STEPS
                                A1 BO G1 A3 BO P6 A0          1.00      110.
4 OPERATE UNISHEAR AT WORKTABLE PROCESS F 2
                                A1 BO G1 M6 X173I0 A0          2.00      3620.
5 CUT CORNERS ON SHEETMETAL AT WORKTABLE 1 CUT USING
  SNIPS AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7 )
                                A1 BO G1 (A1 BO P3 C1 )A1 BO P1 A0 (24)  1.00      1240.
6 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 2
  STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 24 ( 4
  5 6 7 )
                                A1 BO G1 (A1 BO PO F6 )A1 BO P1 A0 (24)  1.00      1720.
7 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
  WITH 4 STEPS F 2
                                A1 BO G1 A6 BO P3 A0          2.00      220.
8 MOVE CART FROM WORKTABLE TO LAYOUT MACHINE
                                A1 BO G1 A54 BO P1 A0          1.00      570.

                                TOTAL TMU                        9670 .
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File Description ? SHEAR UNEVEN END OF TRANSFORMER

Output to line-printer (Y or N) ?

12,630

File Description ? FORM LAP END ON TRANSFORMER

Output to line-printer <Y or N> ? N

(39,101)

FIT • W12

TRANSF.M24

FORM LAP END ON TRANSFORMER WITH LAPOUT ROTARY MACHINE AT
SHEETMETAL SHOP

PER TRANSFORMER

OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 15"X9" TO 10"X14"X18" LG
FITTER BEGINS AT LAPOUT

1	PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4		
	STEPS F 2		
	A1 BO G1 A6 BO P3 A0	2.00	220.
2	PUSH LAPOUT-SWITCH PROCESS F 2		
	A1 EO G1 M1 X16 IO A0	2.00	380.
3	PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT MACHINE WITH		
	2 STEPS F 2		
	A3 EO G1 M1 X0 I3 A0	2.00	1600
4	REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH		
	4 STEPS F 2		
	A1 BO G1 A6 BO P3 A0	2.00	220.
5	MOVE CART FROM LAPOUT TO PITTSBURGH		
	A1 BO G1 A6 B0 P1 A0	1.00	90.
		TOTAL TMU	1070.

Fife Description ? FORM LAP END ON TRANSFORMER

Output to line-printer <Y or N> ?

13700


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output to line-printer <Y or N> ? N
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    NASSCO SHEETMETAL SHAPE 1
    * 20 GAUGE GALV. SHEETMETAL
    * 15'X9' TO 10'X14'X18' LG
    * BEND TRANSFORMER SIDES UP 90 DEGREES
FITTER BEGINS AT LEAFBRAKE

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TOTAL TMU 1270.

17480

File Description ? BEND SHEETMETAL LAP ENDS FOR TRANSFORMER

output to line-printer <Y or N> ? N

(39,101)

FIT •W12

TRANSF.M27

BEND SHEETMETAL LAP ENDS FOR TRANSFORMER WITH PAN-BRAKE AT
SHEETMETAL SHOP

PER TRANSFORMER

OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHEETMETAL SHAPE 1

*20 GAUGE GAL SHEETMETAL

* 15'X9' TO 10'X14'X18' LG

* KING UP LAP ENDS AS PER INSTRUCTIONS

FITTER BEGINS AT PANBRAKE

- 1 POSITION SHEETMETAL2 FROM CART AT PANBRAKE TO PANBRAKE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 F6 A0 2.00 280.

- 2 FASTEN NUT (JAWS) TO SHEETMETAL2 AT PANBRAKE 5
WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE F 2

A1 B0 G1 A1 B0 P3 F16 A1 B0 F1 A0 2.00 480.

- 3 OPERATE PANBRAKE-LEVER PROCESS F 2

A1 B0 G1 M6 X96 IO A0 2.00 2080.

- 4 POSITION SHEETMETAL2 FROM PANBRAKE TO PANBRAKE F 6

A1 B0 G1 A1 B0 P6 A0 6.00 540.

- 5 OPERATE PANBRAKE-LEVER PROCESS F 6

A1 B0 G1 M6 X96 IO A0 6.00 6240.

- 6 REPLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

- 7 MOVE CART FROM PANBRAKE TO WORKTABLE

A1 B0 G1 A54 B3 F1 A0 1.00 600.

TOTAL TMU 10440.

File Description ? BEND SHEETMETAL LAP ENDS FOR TRANSFORMER

OUTPUT to line-printer <Y or N> ?

27920

File Description ? ASSEMBLE TRANSFORMER

output to line-printer <Y or N> ? N

(39,101)

FIT •W12 TRANSF.M28
ASSEMBLE TRANSFORMER WITH HAMMER AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 29-JUN-83
NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV SHEETMETAL
* 15'X9' TO 10'X14'X18' LG
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F2		
	A1 B0 'G1 A6 B0 P3 A0	2.00	220.
2	FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 (45 6 7)		
	A1 B0 G1 (A1 B0 P0 F6)A1 B0 F1 A0 (4)	1.00	320.
3	POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE WITH 3 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
4	PLACE SETTING TOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F6		
	A1 B0 G1 A1 B0 F3 A0	6.00	360.
5	FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 (4567)		
	A1 B0 G1 (A1 B0 P0 F6)A1 B0 F1 A0 (6)	1.00	460.
6	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT' WORKTABLE AND ASIDE PF 6 (4567)		
	A1 B0 G1 (A1 B0 P0 F6)A1 B0 F1 A0 (6)	1.00	460.
7	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 10 (4567)		
	A1 B0 G1 (A1 B0 P0 F32)A1 B0 P1 A0 (10)	1.00	3340.
8	FASTEN [BEND] SHEETMETAL CLAP FLANGES3 AT WORKTABLE 3 WRIST-STROKES USING HANDFORMERS AT WORKTABLE AND ASIDE P F 8 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P3 F10)A1 B0 P1 A0 (8)	1.00	1160.
9	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS		
	A0 B0 GO A0 B0 P0 T10 A0 B0 PO A0	1.00	100.
	TOTAL TMU		6560.

File Description ? ASSEMBLE TRANSFORMER

34480

Output to line-printer <Y or N> ?

#1

SHEETMETAL SHAPE10" x 12" to 12" x 10" x 18" LG TRANSFORMER

FAB	20920	13 MIN	2720
MARK OUT	16210	10 MIN	1180
WELD	19150	11 MIN	27350
TOTAL TMU:	56280	34 MIN.	53610

File Description ? MARK OUT SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N

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(39,101)
FIT      •W11                      TRANSF.M01
MARK OUT SHEETMETAL FOR TRANSFORMER WITH AWL AT SHEET METAL SHOP
PER TRANSFORMER                      OFG: 4 23-JUN-83
NASSCO SHEET METAL SHAPE 1
* 11 GAUGE GALV. SHEET METAL
* 10'X12' TO 12'X10'X18' LG
* MARK OUT USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE. FROM WORKTABLE TO SHEET METAL AT
  WORKTABLE WITH 3 STEPS
      A1 B0 G1 A6 B0 P6 A0          1.00      140.
2 PLACE WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE
  WITH 3 STEPS F2
      -A1 B0 G1 A6 B0 P3 A0        2.00      220.
3 MARK LINE FROM TEMPLATE TO SHEET METAL AT WORKTABLE 5
  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 (4 567
      A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (8) 1.00      1480.
4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE
      A1 B0 G1 A1 B0 P6 A0          1.00      90.
5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
  HAMMER AT WORKTABLE AND ASIDE PF 4 (4567)
      A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (4) 1.00      200.
6 REPLACE WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE.
  WITH 3 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0          2.00      220.
7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO
  WORKTABLE WITH 3 STEPS
      A1 B0 G1 A6 B0 P3 A0          1.00      110.
8 PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 3 STEPS
      A1 B0 G1 A6 B0 P3 A0          1.00      110.
9 MARK CORNERS FROM CORNER TEMPLATE TO SHEETMETAL AT
  WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF
  1 6 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (16) 1.00      840.
10 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
  REDPEN AT WORKTABLE AND ASIDE PF 47 (4567)
      A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (47) 1.00      2390.
11 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
  ASIDE PF 47 ( 4 56 7)
      A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (47) 1.00      2390.
12 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 (4567
      A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (34) 1.00      1740.

TOTAL TMU                      9930.

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(39,9101)

FIT .w12

TRANSF.M02

MARK OUT SHEETMETAL TOP FOR TRANSFORMER WITH AWL AT SHEETMETAL

SHOP

R TRANSFORMER

OFG: 4 23-JUN-83

NASSCO SHEETMETAL SHAPE 1

* 11 GAUGE GALV. SHEETMETAL

* 10'X12' TO 12'X10'

* MARK OUT USING TEMPLATE

FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	PLACE WEIGHT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 3 (4567	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (3)	1.00	580.
4	REPLACE WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
5	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF.4 (4567)	A1 B0 G1 (A1 B0 P3 A0)	1.00	180.
7	MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 8 (4567)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (8)	1.00	440.
8	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 4 (4567)	A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (4)	1.00	760.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 20 (4567)	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (20)	1.00	1040.
10	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 20 (4567)	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (20)	1.00	1040.
11	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 F3 A0	2.00	220.
12	MOVE CART FROM WORKTABLE TO 14FT. SHEAR	A1 B0 G1 A152B0 P1 A0	1.00	1550.

TOTAL TMU 6280.

File Description ? MARK OUT SHEETMETAL TOP FOR TRANSFORMER

OutPut to line-printer <Y or N> ?

Please input file <TRANSF.M03> ?

File Description ? SHEAR SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N

(39,101)

FIT .w12 TRANSF.M03
SHEAR SHEETMETAL FOR TRANSFORMER WITH 14FT SHEAR AT SHEETMETAL
SHOP
PER TRANSFORMER OFG: 4 23-JUN-83
NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV, SHEETMETAL
* 10'X12' TO 12'X10'X18' LG
*c MARK OUT USING TEMPLATE
FITTER BEGINS AT 14FT.SHEAR

1	POSITION SHEETMETAL2 FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F2		
	A1 80 G1 A6 B0 P6 A0	2.00	280.
2	PUSH 14FT.SHEAR-FOOTPEDALL PROCESS F2		
	A1 B0 G1 M1 X3 IO A0	2.00	120.
3	POSITION SHEETMETAL2 FROM 14FT.SHEAR TO 14FT.SHEAR F7		
	A1 B0 G1 A1 B0 P6 A0	7.00	630.
4	PUSH 14FT.SHEAR-FOOTPEDALL PROCESS F 2		
	A1 B0 G1 M1 X3 IO A0	2.00	120.
5	PLACE SHEETMETAL2 FROM 14FT.SHEAR TO CART AT 14FT.SHEAR WITH 10 STEPS F2		
	A1 B0 G1 A16 B0 P3 A0	2.00	420.
6	MOVE CART FROM 14FT.SHEAR TO WORKTABLE		
	A1 B0 G1 A152B3 P1 A0	1.00	1580.
		TOTAL TMU	3150.

File Description ? SHEAR SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ?

e <TRANSF.M04> ?

File Description ? CUT SHEETMETAL FOR TRANSFORMER

(..)Output to line-Printer <Y or N> ? N

(39,101)
FIT •W12 TRANSF.M04
CUT SHEETMETAL FOR TRANSFORMER' WITH SABER-SAW AT SHEETMETAL SHOP
PER TRANSFORMER 0FG: 4 23-JUN-83
NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 10'X12' TO 12'X10'X18' LG
* CUT AREA THAT CAN NOT BE CUT ON --
* --SHEAR AND CORNERS
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F2		
	A1 B0 G1 A6 B0 F3 A0	2.00	220.
2	MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE		
	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	POSITION SABER-SAW FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F13		
	A1 B0 G1 A1 B0 P6 A0	13.00	1170.
4	OPERATE SABER-SAW AT WORKTABLE PROCESS F15		
	A1 B0 G1 M6 X67 IO A0	15.00	11250.
5	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
6	MOVE CART FROM WORKTABLE TO 14FTHYDROPPRESSBRAKE		
	A1 B0 G1 A96 B0 P1 A0	1.00	990.
		TOTAL TMU	15820.

File Description ? CUT SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ?

78,270

File Description ? BEND SHEETMETAL FOR TRANSFORMER

output to line-printer <Y or N> ? N

(39,101)

FIT •W12

TRANSF.MO5

BEND SHEETMETAL FOR TRANSFORMER WITH 14FT. HYDRO-PRESS-BRAKE AT
SHEETMETAL SHOP

PER TRANSFORMER

OFG: 4 23-JUN-83

NASSCO SHEETMETAL SHAPE 1

* 11 GAUGE GALV . SHEETMETAL

* 10'X12' TO 12'X10'X18' LG

FITTER BEGINS AT 14FTHYDROPRESSBRAKE

1	POSITION SHEETMETAL FROM CART AT 14FTHYDROPRESSBRAKE TO 14FTHYDROPRESSBRAKE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS		
	A1 B0 G1 M1 X24 IO A0	1.00	270.
3	POSITION SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO 14FTHYDROPRESSBRAKE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
4	PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS		
	-A1 B0 G1 M1 X24 IO A0	1.00	270.
5	REPLACE SHEETMETAL2 FROM 14FTHYDROPRESSBRAKE TO CART AT 14FTHYDROPRESSBRAKE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM 14FTHYDROPRESSBRAKE TO WORKTABLE		
	A1 B0 G1 A96 B3 P1 A0	1.00	1020.
		TOTAL TMU	1950.

File Description ? BEND SHEETMETAL FOR TRANSFORMER

209.20

Please-input file <TRANSF.M06> ?

le Description ? WELD TRANSFORMER

OutPut to line-Printer <Y or N> ? N

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( 39,101)
WELD .W01 TRANSF.M06
WELD TRANSFORMER WITH ARC (STICK) WELDER AT SHEETMETAL SHOP
WELDING BOOTH
PER TRANSFORMER DFG; 4 19-JUL-83
WELDING NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 10'X12' TO 12'X10'X18' L
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
  AT WORKTABLE WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0 2.00 220 .
2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
      -A1 B0 G1 A131B3 P1 A0 1.00 1370 .
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
  WELDTABLE WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0 2.00 220 .
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
  WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
      A3 B0 G1 M1 X0 IO A32 1.00 370 .
5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT
  WELDMACHINES TO ON AT WELDMACHINES
      A1 B0 G1 M3 X0 IO A1 1.00 60 .
6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
  TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2
      A3 B3 G1 A1 B0 P6 A0 2.00 280 .
7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2
      A1 B0 G1 M1 X10 IO A0 2.00 260 .
8 WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1
  WRIST-TURN USING HAND F 8
      A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 8.00 560 ,
9 FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 8
      A1 B0 G1 M1 X0 IO A1 8.00 320 .
10 POSITION STINGER-BUTTON1 FROM WELDTABLE TO SHEETMETAL
  AT WELDTABLE F 8
      A1 B0 G1 A1 B0 P6 A0 8.00 720 .
11 OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F
  6
      A1 B0 G1 M6 X17310 A0 6.00 10860 .
12 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 8
      A1 B0 G1 M1 X0 IO A1 8.00 320 .
13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
  WELDTABLE 5 STRIKES USING SLAGHAMMER AT WELDTABLE
  ASIDE PF 3 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P0 L16 )A1 B0 P1 A0 (3) 1.00 550 .
14 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
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ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
1 2 (4 5 6 7)

	A1	B0	G1	(A1	B0	P1	C10)A1	B0	P1	A0	(12)	1.00	1480.	
15	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2														
	A1	B0	G1	A6	B0	P3	A0						2.00	220.	
16	FITTER MOVE CART FROM WELDTABLE TO WORKTABLE														
	A1	B0	G1	A13	B0	P1	A0						1.00	1340.	
													TOTAL TMU	19150.	

File Description ? WELD TRANSFORMER

OUTPut to line-printer <Y or N> ?

SHEET METAL SHAPE # 1

7"X6" to 8"X7"X 31"-LG. TRANSFORMER

<u>FAB</u>	37,360	22 MIN.
<u>MARK OUT</u>	13,950	8 MIN.
<u>TOTAL TMV.</u>	51,310	3.1 MIN.

File Description ? SHEAR SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1)
FIT .w11 TRANSF.M31
SHEAR SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
SMALL 8FT. SHEAR AT SHEETMETAL SHOP
PER TRANSFORMER DFG: 4 18-MAY-83

NASSOC SHEETMETAL SHAPE 1
* 20 GAUGE GALV, SHEETMETAL
* 7.X6' TO 8'X7'X31'L RECT. TO --
* --RECT. TRANSFORMER
* COMPLETE SHEARING AT WORKTABLE --
* -- WITH UNI-SHEAR
FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL2 FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4. STEPS F 2		
	A1 B0 G1 A6 B0 F6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2		
	A1 B0 G1 M1 X5 IO A0	2.00	180.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 8		
	A1 B0 G1 A1 B0 P6 A0	8.00	720.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 12		
	A1 B0 G1 M1 X5 IO A0	12.00	1080.
5	REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 10 STEPS F 2		
	A1 B0 G1 A15 B0 P3 A0	2.00	420.
	MOVE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE		
	A1 B0 G1 A67 B3 P1 A0	1.00	730.
		TOTAL TMU	3410.

TYPE D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Output to line-printer <Y or N> ? N

DFG: 4 11-JUL-83

12,220

File Description ? FORM LAP ENDS FOR TRANSFORMER

Output to line-Printer <Y or N> ? N

(39,1)
FIT .W11 TRANSF.M33
FORM LAP ENDS FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
LAPOUT (ROTARY MACHINE) AT SHEETMETAL SHOP
PER TRANSFORMER OFG:4 18-MAY-83
NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 7'X6' TO 8'X7'X31'L RECT. TO --
* -- RECT. TRANSFORMER
FITTER BEGINS AT LAPOUT

1	PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4		
	STEPS F2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	PUSH LAPOUT-SWITCH PROCESS F 2		
	A1 B0 G1 M1 X16 IO A0	2.00	380.
3	PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 2 STEPS		
	F 2		
	A3 B0 G1 M1 X0 I3 A0	2.00	160.
4	REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH		
	4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2 . 0 0	220.
5	MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO PITTSBURGH		
	AL B0 G1 A6 B0 P1 A0	1.00	90.
		TOTAL TMU	1070,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

13,290

File Description ? FORM PITTSBURGH LOCK FOR TRANSFORMER

output to line-Printer <Y or N> ? N

(3 9 , 1)
FIT .W11 TRANSF.M34
FORM PITTSBURGH LOCK FOR RECTANGULAR TO RECTANGULAR TRANSFORMER
WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 11-JUL-83
NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 7'X6' TO 8'X7'X3L'L RECT. TO --
* -- RECT. TRANSFORMER
* FORM PITTSBURGH ON BOTTOM SECTION AND--
* -- 90 DEGREE EDGE ON TOP SECTION
FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	PUSH PITTSBURGH-BUTTON PROCESS F 4		
	A1 B0 G1 M1 X32 IO A0	4.00	1400.
3	PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 2 STEPS F 4		
	A3 B0 G1 M1 X0 I3 A0	4.00	320.
4	REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
5	MOVE CART FROM PITTSBURGH TO LEAFBRAKE		
	A1 B0 G1 A32 B0 P1 A0	1.00	350.
TOTAL TMU			2510.

TYpe D,EM,CT,EW,EX,L,LD,LS,T,W <or H for help> ?

15,800

File Description ? BEND SHEETMETAL FOR TRANSFORMER

output to line-Printer <Y or N> ? N

(39, 1)

FIT •W11

TRANSF.M35

BEND SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
LEAF BRAKE AT SHEETMETAL SHOP
PER TRANSFORMER

OFG: 4 11-JUL-83

NASSCO SHEETMETAL SHAPE 1

* 20 GAUGE GALV. SHEETMETAL

* 7'X6' TO 8'X7'X31' RECT. TO --

* -- RECT TRANSFORMER

* BEND UP SIDES OF TRANSFORMER 90 DEGREES

FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO
LEAFBRAKE WITH 4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 OPERATE LEAFBRAKE-LEVER PROCESS

A1 B0 G1 M6 X16 IO A0 1.00 240.

3 POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE

A1 B0 G1 A1 B0 P6 A0 1.00 90.

4 OPERATE LEAFBRAKE-LEVER PROCESS

A1 B0 G1 M6 X16 IO A0 1.00 240.

5 REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM LEAFBRAKE TO PANBRAKE

A1 B0 G1 A42 B0 P1 A0 1.00 450.

TOTAL TMU 1270.

TYpe D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

17,070

File Description ? BEND LAP ENDS FOR TRANSFORMER

output to line-printer <Y or N> ? N

(39 , 1)

FIT •W11

TRANSF.M36

BEND LAP ENDS FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
PANBRAKE AT SHEETMETAL SHOP

PER TRANSFORMER

OFG: 4 12-JUL-83

NASSCO SHEETMETAL SHAPE 1

* 20 GAUGE GALV. SHEETMETAL

* 7'X6' TO 8'X7'X31' RECT. TO --

* --- RECT. TRANSFORMER

* KINK UP LAP ENDS TO OFFSET ANGLE

FITTER BEGINS AT PANBRAKE

1 POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE WITH 5
WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE

A1 B0 G1 A1 B0 P3 FL6 A1 B0 P1 A0 1.00 240.

3 OPERATE PANBRAKE-LEVER PROCESS F 8

A1 B0 G1 M6 X96 IO A0 8.00 8320,

4 REPLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE
WITH 4 STEPS F 2

A1 B0 G1 A6 E0 P3 A0 2.00 220.

5 MOUE CART FROM PANBRAKE TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 9660.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

26730

Output to line-printer <Y or N> ? N

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

3 . 7 , 3 6 0

File Description ? MARK OUT RECTANGULAR TO RECTANGULAR TRANSFORMER

Output to line-printer <Y or N> ? N

(39,1)
FIT •Wll T R A N S F
MARK OUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER
WITH AWL AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 18-MAY-83
NASSCO SHEETMETAL SHAPE 1
* 18 GAUGE GALV. SHEETMETAL
* 17'X15' TO 16('X18'X32' RECT TO --
* --RECT. TRANSFORMER
FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 4 STEPS F 5	A1 E0 G1 A6 B0 P6 A0	5.00	700.
3	MARK OUTLINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (16)	1.00	2920.
4	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6	A1 B0 G1 A1 B0 P6 A0	6.00	540.
5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER. AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F3) A1 B0 P1 A0 (6)	1.00	260.
6	REMOVE WEIGHTS FROM TEMPLATES AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 6	A1 B0 G1 A6 H0 P1 A0	6.00	540.
7	REMOVE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2	A1 B0 G1 A6 B0 P1 A0	2.00	180.
8	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (16)	1.00	2920.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 45 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (45)	1.00	2290.
10	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52)	1.00	2640.
11	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
12	MOUE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR	A1 E0 G1 A67 B0 P1 A0	1.00	700.
	TOTAL TMU			14210,

7 SH/5.

File Description ? SHEAR SHEETMETAL FOR RECT. TO RECT. TRANSFORMER

Output to line-printer <Y or N> ? N

(39 , 1)
FIT 0 W11

TRANSF.M41

SHEAR SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
SHALL 8FT. SHEAR AT SHEETMETAL SHOP
PER TRANSFORMER

OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1
* 20 GAUGE GALV. SHEETMETAL
* 17'X15' TO 16'X18'X32' RECT TO RECT. --
* TRANSFORMER
FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2		
	A1 B0 G1 A6 E0 P6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2		
	A1 B0 G1 M1 X6 IO A0	2.00	180.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 8		
	A1 B0 G1 A1 B0 P6 A0	8.00	720.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8		
	A1 B0 G1 M1 X6 IO A0	8.00	720.
5	REPLACE SHEETMETAL F-ROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 10 STEPS F 2		
	A1 B0 G1 A16 B0 P3 A0	2.00	420.
6	MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE		
	A1 B0 E1 A67 B3 P1 A0	1.00	730.

TOTAL TMU 3050,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT CORNERS FOR RECT. TO RECT TRANSFORMER

output to line-printer <Y or N> ? N

(3 9 9 1)

FIT •W11

TRANSF.M42

CUT CORNERS FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
UNI-SHEAR AT SHEETMETAL SHOP

PER TRANSFORMER

OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1

* 18 GAUGE GALV. SHEETMETAL

* 17'X15' TO 16'X18'X32'L RECT TO RECT.--

* --TRANSFORMER

* FLATTEN CORNERS AFTER CUTTING

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2

'A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE

A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 4

A1 B0 G1 M6 X173I0 A0 4.00 7240.

4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
SNIPS AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 C3)A1 E0 P1 A0 (16) 1.00 1160.

5 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES

USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)

A1 B0 G1 (A1 B0 PO F6)A1 B0 F1 A0 (12) 1.00 880.

6 REPLACE SHEETMETAL FROM' WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

7 MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT

A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 12260.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

15310

File Description ? FROM LAP ENDS FOR RECT TO RECT. TRANSFORMER

Output to line-printer <Y or N> ? N

(3 9 , 1)
FIT •W11 TRANSF.M43
FORM LAP ENDS FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
LAPOUT (ROTARY MACHINE) AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 07-JUL-83
NASSCO SHEETMETAL SHAPE 1
* 18 GAUGE GLAV. SHEETMETAL
* 17'X15' TO 16'X18'X32'L RECT. TO --
X RECT. TRANSFORMER
FITTER BEGINS AT LAPOUT

1	PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	PUSH LAPOUT-SWITCH PROCESS F 2	A1 B0 G1 M1 X16 IO A0	2.00	380.
3	PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 2 STEPS. F 2	A3 B0 G1 M1 X0 I3 A0	2.00	160.
4	REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
5	MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO PITTSBURGH	A1 B0 G1 A6 B0 P1 A0	1.00	90.
			TOTAL TMU	1070.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

16,3080

File Description ? FORM PITTSBURGH LOCK FOR TRANSFORMER

output to line-printer <Y or N> ? N

(3 9 , 1)

FIT •W11

TRANSF.M44

FORM PITTSBURGH LOCK FOR RECTANGULAR TO RECTANGULAR TRANSFORMER
WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP
PER TRANSFORMER

OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1

* 18 GAUGE GALV. SHEETMETAL

* 17'X15' TO 16'X18'X32'L RECT. TO --

* --RECT. TRANSFORMER

* FORM PITTSBURGH ON BOTTOM SECTION AND--

* --90 DEGREE EDGE ON TOP SECTION

FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 2

A1 B0 G1 A6 E0 P3 A0 2.00 220.

2 PUSH PITTSBURGH-BUTTON PROCESS F 4

A1 B0 G1 M1 X32 IO A0 4.00 1400.

3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 2
STEPS F 4

A3 B0 G1 M1 X0 13 A0 4.00 320.

4 REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

5 MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO
C O R N I C E B R A K E

A1 B0 G1 A24 B0 P1 A0 1.00 270.

TOTAL TMU 2430.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

18,810

File Description ? BEND SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N

(39,1)

FIT •w11 TRANSF.M45

BEND SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
CORNICEBRAKE AT SHEETMETAL SHOP

PER TRANSFORMER

OFG: 4 07-JUL-83

NASSCO SHEETMETAL SHAPE 1

* 18 GAUGE GALV. SHEETMETAL

* 17'X15' TO 16'X18'X32' RECT. TO--

* RECT. TNSFORMER

* BEND UP SIDES OF TRANSFORMER 90 DEGREES

FITTER BEGINS AT CORNICEBRAKE

1 POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO
CORNICEBRAKE WITH 4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 OPERATE CORNICEBRAKE-LEVER PROCESS

A1 E0 E1 M6 X42 IO A0 1.00 500.

3 POSITION SHEETMETAL FROM CORNICEBRAKE TO CORNICEBRAKE

A1 B0 G1 A1 B0 P6 A0 1.00 90.

4 OPERATE CORNICEBRAKE-LEVER PROCESS

A1 B0 G1 M6 X42 IO A0 1.00 500.

5 REPLACE SHEETMETAL FROM CORNICEBRAKE TO CART AT
CORNICEBRAKE WITH 4 STEPS

A1 B0 E1 A6 B0 P3 A0 1.00 110.

6 MOVE CART WITH SHEETMETAL2 FROM CORNICEBRAKE TO
PANBRAKE

A1 B0 E1 A10 B0 P1 A0 1.00 130.

TOTAL TMU 1470.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

20,280

File Description ? BEND SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N

(3 9 , 1)

FIT • W 1 1 TRANSF.M46
BEND SHEETMETAL FOR TRANSFORMER WITH PAN-BRAKE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 07-JUL-83
NASSCO SHEETMETAL SHAPE 1
* 18 GAUGE GALV. SHEETMETAL
* 17'X15' TO 16'X18'X32' LG RECT.--
* --TO RECT. TRANSFORMER
FITTER BEGINS AT PANBRAKE

1	POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2 0 0	280.
2	FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE WITH 4 WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE F 2		
	A1 B0 G1 A1 B0 P3 F16 A1 B0 P1 A0	2.00	480.
3	OPERATE PANBRAKE-LEVER PROCESS F 2		
	A1 B0 G1 M6 X96 IO A0	2.00	2080.
4	POSITION SHEETMETAL FROM PANBRAKE TO PANBRAKE F 6		
	A1 B0 G1 A1 B0 P6 A0	6.00	540.
5	OPERATE PANBRAKE-LEVER PROCESS F 6		
	A1 B0 G1 M6 X96 IO A0	6.00	6240.
6	REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
7	MOUE CART FROM PANBRAKE TO WORKTABLE		
	A1 B0 G1 A54 B3 F1 A0	1.00	600.

TOTAL TMU 10440,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

30720

File Description ? ASSEMBLE TRANSFORMER

Output to line-printer <Y or N> ? N

(3 9 , 1)

FIT .W11

TRANSF.M47

ASSEMBLE RECTANGULAR TO RECTANGULAR TRANSFORMER WITH HAMMER AT
SHEETMETAL SHOP

PER TRANSFORMER

OFG: 4 07-JUL-83

NASSCO SHEETMETAL SHAPE 1

* 18 GAUGE GALV. SHEETMETAL

* 17'X15' TO 16'X18'X32' RECT. TO --

* --RECT, TRANSFORMER

* FASTEN TOP TO BOTTOM WITH PITTSBURGH

* LOCK

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3
STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5
6 7)

A1 B0 G1 (A1 B0 PO F6)A1 B0 P1 A0 (4) 1.00 320.

3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL
[BOTOTM] AT WORKTABLE WITH 2 STEPS

A1 B0 E1 A3 B0 P6 A0 1.00 1 1 0 .

4 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 12

A1 B0 G1 A1 B0 P6 A0 12.00 1080.

5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)

A1 B0 G1 (A1 B0 PO F6)A1 B0 P1 A0 (12) 1.00 880.

6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES
USING HAMMER-AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)

A1 B0 E1 (A1 E0 PO F10)A1 E0 P1 A0 (12) 1.00 1360.

7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 20 (4 5 6 7)

A1 B0 E1 (A1 B0 PO F32)A1 B0 P1 A0 (20) 1.00 6640.

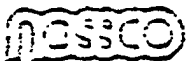
8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

A0 B0 GO A0 B0 PO T10 A0 B0 PO A0 1.00 100.

TOTAL TMU 10710.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

41430



POST: COMPUTER SYS EMS
Title and Method Description Sheet

37, 10/

Date 5-13-83

File Description

Sign YOUNG

Page 1

TITLE (• REQUIRED)

SPECIAL CONDITIONS: • KEYPOINTS

• ACTIVITY: <u>MARK</u>	<u>N.A.S.S.C.O. SHEETMETAL SHAPE #1</u>		
• OBJECT: <u>SHEETMETAL</u>	<u>*18 GAUGE GALV. 17X15 to 16X18X32" Rect. to Rect. TRANS</u>		
<input type="checkbox"/> IN. <input type="checkbox"/> ON <input type="checkbox"/> FOR			
PRODUCT/EQUIPMENT:			
TOOL: <u>AWL</u>	DATA UNIT TO BE FILED	TEMPORARY FILE NAME/NO.	DELETE YES NO
• <input type="checkbox"/> TO <input checked="" type="checkbox"/> AT	WORK AREA LAYOUT	<u>Fit. W.O. #</u>	<input type="checkbox"/> <input type="checkbox"/>
SIZE/CAPACITY:	MOST ANALYSIS	<u>TRANS. M.O. #40</u>	<input type="checkbox"/> <input type="checkbox"/>
• WORK AREA ORIGIN: <u>SHOP</u>	COMBINED SUB-OP.		<input type="checkbox"/> <input type="checkbox"/>
WORK AREA NUMBER:	TITLE SHEET		<input type="checkbox"/> <input type="checkbox"/>
• UNIT: <u>Per Rect to Rect.</u> <small>12 inch x 3 7/8 inch 20150 4 1-5/16</small> OFG: <u>4</u>	DATE FILED	LOC. NO.	DATA COORDINATOR
• OPERATOR:	• BEGINS:		

NO.	KEYWORD / METHOD DESCRIPTION	< SIMO > (PF) F
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F-2	
2	POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F-5	
3	MARK OUTLINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE P.F. 16	
4	POSITION PUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F-6	
5	FASTEN PUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE P.F. 6	
6	REMOVE WEIGHTS FROM TEMPLATE TO WORKTABLE AT WORKTABLE WITH 3 STEPS F-6	
7	REMOVE TEMPLATE FROM SHEETMETAL TO WORKTABLE AT WORKTABLE F-2	
8	MARK COYLINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING RED PEN AT WORKTABLE AND ASIDE P.F. 16	
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE P.F. 45	
10	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACK PEN AT WORKTABLE AND ASIDE P.F. 52	
11	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS AND ASIDE F-2	
12	MOVE CART FROM WORKTABLE TO SMALL SHEAR	

SHEET METAL SHAPE

1

17"X15" to 16"X18"X 32" LG. TRANSFORMER

FAB	41430	25 MIN
MARK OUT	14210	9 MIN
TOTAL	55640	33 MIN

SHEET METAL SHAPE

#

/

18 x 16 to 18 x 20 x 30" LG TRANSFORMER

FAB

20,600

8 MIN.

MARK OUT

11,840

7 MIN.

WELD

27,850

17 MIN.

TOTAL T.M.U.S.

60,290

32 MIN.

File Description ? MARK OUT TRANSFORMER

Output to line-printer <Y or N> ? N

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( 39, 1)
FIT      •Wll                      TRANSF.M50
      MARK OUT RECTANGULAR TO RECTANGULAR TRANSFORMER WITH AWL AT
      SHEETMETAL SHOP
      PER TRANSFORMER                      OFG: 4   26-JUL-83
      NASSCO SHEETMETAL SHAPE 1
      * 11 GAUGE GALV. SHEETMETAL
      * 18'X16' TO 18'X30'L RECT. TO--
      * --RECT. TRANSFORMER
      * MARK OUT USING TEMPLATE
      FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 2 STEPS F 2
                        A1 B0 G1 A3 B0 P6 A0          2.00      220 .
2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT
  WORKTABLE WITH 3 STEPS F 4
                        A1 B0 G1 A6 B0 P6 A0          4.00      560 .
3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 ( 4 5 6
  7 )
                        A1 B0 G1 (A1 B0 P1 F1 )A1 B0 P1 A0 (16) 1.00      2920 .
4 POSITION CPUNCH FROM WORKTABLE TO) TEMPLATE AT WORKTABLE
  WITH 3 STEPS F 6
                        A1 B0 G1 A6 B0 P6 40          6.00      840 .
5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
  HAMMER AT WORKTABLE AND ASIDE PF 6 (4 5 7 )
                        A1 B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (6) 1.00      580 .
6 REMOVE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE
  WITH 3 STEPS F 6
                        A1 B0 G1 A6 B0 P1 A0          6.00      540 .
7 REMOVE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO
  WORKTABLE WITH 2 STEPS F 2
                        A1 B0 G1 A3 B0 P1 A0          2.00      120 .
8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
  USING REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
                        A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (16) 1.00      2920 .
9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
  ASIDE PF 45 ( 4 5 6 7 )
                        A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (45) 1.00      2290 .
10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING BLACKPEN AT WORKTABLE AND ASIDE PLF 52 (4 5 6 7)
                        A1 B0 G1 A1 B0 P1 R3 A1 B0 P1 A0          1.00      90 .
11 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
  WITH 4 STEPS AND ASIDE F 2
                        A1 B0 G1 A6 B0 P3 A0          2.00      220 .
12 MOUE CART WITH 42 STEPS FROM WORKTABLE TO 14FT.SHEAR
  WITH 43 STEPS
                        A81 B0 G1 A81 B0 P1 A0          1.00      1640 .
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TOTAL TMU 12640,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR TRANSFORMER

Output to line-Printer <Y or N> ? N

(39,1) .

FIT •W11 TRANSF.M51

SHEAR SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
14FT. SHEAR AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 26-JUL-83

NASSCO SHEETMETAL SHAPE 1

* 11 GAUGE GALV. SHEETMETAL

* 18'X16' TO 18'X20'X30^g L RECTANGULAR--

* -- TO RECTANGULAR TRANSFORMER

FITTER BEGINS AT 14FT.SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO

14FT.SHEAR WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0

2.00

280.

2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 2

A1 B0 G1 M1 X3 IO A0

2.00

120.

3 POSITION SHEETMETAL2 FROM 14FT.SHEAR TO 14FT.SHEAR WITH
2 STEPS F 7

A1 B0 G1 A3 B0 P6 A0

7.00

770.

4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 7

A1 B0 G1 M1 X3 IO A0

7.00

420.

5 REPLACE SHEETMETAL2 FROM 14FT.SHEAR TO CART AT
14FT.SHEAR WITH 10 STEPS F 2

A1 B0 G1 A16 B0 P3 A0

2.00

420.

6 MOUE CART WITH 42 STEPS FROM 14FT.SHEAR TO WORKTABLE
WITH 43 STEPS

A81 B0 G1 A81 B3 P1 A0

1.00

1670.

TOTAL TMU

3680.

Type D, EM, CT, EW, EX, L, LD,LS,M,T,W <or H for help> ?

File Description ? CUT SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N

```
( 3 9 , 1 )
FIT      •Wll                      TRANSF.M52
      CUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
SABER-SAW AT SHEETMETAL SHOP
PER TRANSFORMER                      OFG: 4   26-JUL-83
      NASSCO SHEETMETAL SHAPE 1
      * 11 GAUGE GALV. SHEETMETAL
      * 18'X16' TO 18'X20'X30'L RECTANGULAR--
      * -- TO RECTANGULAR TRANSFORMER
      FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL2 FROM CART AT WORKTABLE TO
  WORKTABLE WITH 4 STEPS F 2
      A1  B0  G1  A6  B0  P6  A0          2.00      280.
2 MOUE SABER-SAW2 FROM; TOOLROOM TO WORKTABLE
      A96 B0  G1  A96 B3  P1  A0          1.00      1970,
3 FASTEN NUT [SAW-BLADE] TO SHEETMETAL AT WORKTABLE 4
  WRIST-TURNS USING ALLEN-WRENCH AT WORKTABLE AND ASIDE
  P F 2 ( 4 5 6 7 )
      A1  B0  G1  (A1 B0 P3 F10 )A1 B0 P1  A0  (2)  1.00      320.
4 POSITION SABER-SAW FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 13
      A1  B0  G1  A1  B0  P6  A0          13.00      1170.
5 OPERATE SABER-SAW AT WORKTABLE PROCESS F15
      A1  B0  G1  M6  X67 IO  A0          15.00      11250.
6 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 4
  STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4
  5 6 7 )
      A1  B0  G1  (A1 B0 PO F10 )A1 B0 P1  A0 (12)  1.00      1360.
7 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
  WITH 4 STEPS F 2
      A1  B0  G1  A6  B0  P3  A0          2.00      220.
8 MOVE CART FROM WORKTABLE TO 14FTHYDROPPRESSBRAKE
      A1  B0  G1  A96 B0  P1  A0          1.00      990.

                                     TOTAL TMU      17560.
```

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? BEND SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N

39, 1)

FIT W11 TRANSF.M53
BEND SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH
14FTHYDROPPRESSBRAKE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 18-MAY-83

NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 18'X16' TO 18'X20'X30'L RECTANGULAR--
* -- TO RECTANGULAR TRANSFORMER
* BEND UP SIDES OF TRANSFORMER 90 DEGREES
* KINK LAP ENDS TO SUIT
* COMPLETE IN WELD BOOTH AREA
* SEE MWELD, TRANSF.M54
FITTER BEGINS AT 14FTHYDROPPRESSBRAKE

1	POSITION SHEETMETAL FROM CART AT 14FTHYDROPPRESSBRAKE TO 14FTHYDROPPRESSBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 HO P6 A0	2.00	280.
2	PUSH 14FTHYDROPPRESSBRAKE-FOOTPEDAL PROCESS F 2		
	A1 B0 G1 M1 X24 IO A0	2.00	540.
3	POSITION SHEETMETAL FROM 14FTHYDROPPRESSBRAKE TO 14FTHYDROPPRESSBRAKE WITH 2. STEP F 4		
	A1 0 G1 A3 B0 P6 A0	4.00	440.
4	PUSH 14FTHYDROPPRESSBRAKE-FOOTPEDAL PROCESS F 2		
	A1 B0 G1. M1 X24 IO A0	2.00	540.
5	REPLACE SHEETMETAL2 FROM 14FTHYDROPPRESSBRAKE TO CART AT 14FTHYDROPPRESSBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
6	MOVE CART FROM 14FTHYDROPPRESSBRAKE TO WORKTABLE		
	A1 B0 G1 A96 B3 P1 A0	1.00	1020.
	TOTAL TMU		3040.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

13,920

File Description ? WELD TRANSFORMER

OutPut to line-Printer <Y or N> ?

(39,3)
WELD •W01 TRANSF.M54
WELD TRANSFORMER WITH ARC (STICK) WELDING AT SHEETMETAL SHOP
WELDING BOOTH
PER TRANSFORMER OFG: 4 21-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 18X16 TO 18X30 LG RECTANGULAR TO --
* --RECTANGULAR TRANSFORMER
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FITTER MOVE CART FROM WORKTABLE TO WELDTABLE		
	A1 B0 G1 A131B3 Pi A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELD TABLE TO WELDTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 B0 G1 M1 X0 IO A32	1.00	370.
5	WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M3 X0 IO A1	1000	60.
6	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2		
	A3 B3 G1 A1 B0 P6 A0	2.00	280.
7	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2		
	A1 B0 G1 M1 X10 IO A0	2.00	260.
8	WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1 WRIST-TURN USING HAND F 8		
	A1 B0 G1 A1 B0 P1 F3 A0 B0 PO A0	8.00	560.
9	PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 8		
	A1 B0 G1 M1 X0 IO A1	8.00	320.
10	WELDOR POSITION STINGER1 FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 8		
	A1 B0 G1 A1 B0 P6 A0	8.00	720.
11	OPERATE STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F 10		
	A1 B0 G1 M6 X173IO A0	10.00	18100.
12	PUSH WELDHOOD FROM Down AT WELDOR TO UP AT WELDOR F 8		
	A1 B0 G1 M1 X0 IO A1	8.00	320.
13	WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND ASIDE F 5		
	A1 B0 G1 A1 B0 PO L16 A1 B0 P1 A0	5.00	1050.
	14WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10 ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF 20 (4567)		
	A1 B0 G14 (A1 B0 P1 C10)A1 B0 P1 A0 (20)	1.00	2440.

15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART A1
WELDTABLE WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

16 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE

A1 B0 G1 A131B0 P1 A0 1.00 1340.

(9)

TOTAL TMU 27850.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

SHEET METAL SHAPE

#

7-1/2" x 6" TO 10" x 4-1/2" x 14" LG TRANSFORMER

FAB	24960	15 MIN.
MARK OUT	10140	6 MIN.
TOTAL TMU.	34830	21 MIN

8 SHTS.

PARAMETER ENDING 01-00-03

CUN	ERECTION UNIT	HULL	DESCRIPTION	ENG. STRUCTURE SCHED	ACTUAL	LOADING SCHED	ACTUAL	CHASE FLAG	STAKE TASK	DATE	DRAWING ERM	INFORMATION ASSY	INSTLN
Q	V2-71023	410	(12 PCS) VENT DUCT AND DK FR 3 NEW PKG PER REV PLAN ZONE 74 (Y1-74)	NREC	NREC	09/20/82	09/09/80	H	00/00/00	12/08/82	410-501-074-	12/08/82	12/08/82
Q	V2-74004	410	(12 PCS) SIGNAL DUCT AND DK FR NEW PKG PER REV PLAN ZONE 74 (Y1-74)	NREC	NREC	10/22/82	00/00/00	H	00/00/00	12/16/82	410-501-074-	12/08/82	12/16/82
Q	V2-92010	410	(31 PCS) SPOOLS FOR HOAT DK FR 27-33 P/S ZONE 92 (Y1-92)	NREC	NREC		NREC	H	00/00/00	12/16/82	410-501-192-	12/08/82	12/16/82
Q	V2-30010	410	PURCH ITEMS (TERMS) 1ST PLAT. F 1ST PLAT. FR 27-33 P/S ZONE 30 (Y1-30)	NREC	NREC		NREC	H	00/00/00	12/17/82	410-501-777-	12/17/82	12/17/82
Q	V2-02004	410	(12 PCS) SPOOLS AND FINE DASH CABLE DK FR 19-27 HUNT/ALDO. ZONE 02 (Y1-02)	NREC	NREC		NREC	H	00/00/00	12/23/82	410-501-002-	12/01/82	12/23/82
Q	V2-92000	410	(30 PCS) SPOOLS FOR HOAT DK FRS 33-40 P/S ZONE 92 (Y1-92)	NREC	NREC		NREC	H	00/00/00	12/23/82	410-501-292-	12/19/82	12/23/82
Q	V2-92010	410	(12 PCS) VENT DUCT (HODDS) CAN FR 39-43 PORT (WEATHER DK) ZONE 94 (Y1-94)	NREC	NREC	11/03/82	00/00/00	H	00/00/00	12/23/82	410-501-202-	12/21/82	12/23/82
Q	V2-94010	410	COMPLETE INSTALLATION OF V2-94	NREC	NREC		NREC	H	00/00/00	12/23/82	410-501-194-	12/23/82	12/23/82
Q	V2-99010	410	COMPLETE INSTALLATION OF V2-94 ZONE 93 (Y1-93)	NREC	NREC		NREC	H	00/00/00	12/23/82	410-501-194-	12/23/82	12/23/82
Q	V2-74003	410	PURCHASED ITEM (TERMINALS) FOR FRS 37-43 STD ZONE 74 (Y1-74)	NREC	NREC		NREC	H	00/00/00	01/23/83	410-501-777-	01/03/83	01/03/83
Q	V2-02007	410	(29 PCS) VENT CABLE DECK FR 22-26 PORT/STBD, ZONE 02 (Y1-02)	00/00/00	00/00/00	11/02/82	00/00/00	H	00/00/00	01/14/83	410-501-002-	12/10/82	01/14/83
Q	V2-02000	410	(18 PCS) VENT FAN RM 74 CABLE DECK FR 20-27 STD. ZONE 02 (Y1-02)	NREC	NREC	12/01/82	00/00/00	H	00/00/00	01/24/83	410-501-002-	12/23/82	01/24/83

File Description ? MARK OUT TRANSFORMER

Output to line-Printer <Y or N> ? N

(39, 3)

FIT •W04 T R A N S F
MARK OUT SHEETMETAL FOR TRANSFORMER WITH AWL AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 OS-MAR-83

U.s.s. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS:7 1/2'X6'TO 10'X 4 1/2'
* MARK OUT TRANSFORMER USING TEMPLATE
* CENTER PUNCH BEND LINES
* 1 TEMPLATE 1 PIECE
* 1 PIECE =BOTTOM AND SIDES OF TRANSFORMER
FITTER BEGINS AT WORKTABLE

1	PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS	A1 B0 G1 A6 80 P3 A0	1.00	110.
2	PLACE 1 WEIGHT FROM WORKTABLE TO SHEETMETAL AND TEMPLATE AT WORKTABLE WITH 3 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 'R16)A1 B0 P1 A0 (B)	1.00	14B0.
4	POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE AND ASIDE PF 4 (4. 5 6)	A1 B0 G1 (A1 B0 P6)A0 (4)	1.00	300.
5	FASTEN CPUNCH TO WORKTABLE AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 4 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (4)	1.00	200.
6	REPLACE WEIGHT FROM TEMPLATE TO WORKTABLE AT WORKTABLE WITH 3 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
7	REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE AT WORKTABLE WITH 3 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
B	PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS	A1 B0 G1 A.5 B0 P3 A0	1.00	110.
9	MARK CORNERS FROM CORNER TEMPLATE ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 16 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (16)	1.00	840.
10	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	26.40.
11	MARK CONSTRUCTION LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 47 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (47)	1.00	2390.
	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 (4 5 6 7			

A1 B0 G1 (A1 B0 F1 R3)A1 B0 F1 A0 (34) 1.00 1740.

TOTAL TMU 10140.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? MARK OUT TRANSFORMER (TOP)

Output to line-Printer <Y or N> ? N

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(39,3)
FIT      •W04.                      T R A N S F
      MARK OUT SHEETMETAL FOR TRANSFORMER TOP WITH AWL AT SHEETMETAL
SHOP
PER TRANSFORMER (TOP)                      OFG: 4 08-MAR-83
      U. S. S. CAPE COD
      * WORK ORDER 3070-339
      * SKETCH 737
      * 20 GAUGE GALV. SHEETMETAL
      * DIMENSIONS:7 1/2'X6' TO 10'X4 1/2'
      * MARK OUT TRANSFORMER TOP USING TEMPLATE
      * 1 TEMPLATE 1 PIECE
      FITTER BEGINS AT WORKTABLE

1 PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 3 STEPS
                                A1 HO G1 A6 B0 P3 A 0      1.00      110.
  PLACE 1 WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE
  WITH 3 STEPS F 2
                                A1 B0 G1 A6 B0 P3 A0      2.00      220.
3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
                                A1 B0 G1 B0 (A1 B0 F1 R16 )A1 B0 F1 A0 (4) 1.00      760.
4 REPLACE WEIGHT FROM SHEETMETAL TO WORKTABLE AT
  WORKTABLE WITH 3 STEPS
                                A1 B0 G1 A6 B0 P3 A0      1.00      110.
5 REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE WITH 3
  STEPS
                                A1 B0 G1 A6 B0 F3 A0      1.00      110.
4 PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE AND ASIDE PF 4 ( 4 5 6 )
                                A1 B0 G1 (A1 B0 P3 )A0 (4) 1.00      130.
7 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 1
  DIGIT USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
                                A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (B) 1.00      440.
3 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
  REDPEN AT WORKTABLE AND ASIDE PF 25 ( 4 5 6 7 )
                                A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (25) 1.00      1290.
9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
  ASIDE PF 20 ( 4 5 6 7 )
                                A1 B0 G1 (A1 B0 F1 R3 )A1 B0 P1 A0 (20) 1.00      1040.
10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 ( 4 5 6 7 )
                                A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (34) 1.00      1740.
11 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
  WITH 4 STEPS
                                A1 B0 G1 AS B0 P3 A 0      1.00      110.
12 MOVE CART FROM WORKTABLE TO SMALLSHEAR
                                A 1 B0 G1 A67 B0 F1 A0      1.00      700.

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TOTAL TMU 6810.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

please input file <TRANSF> ?

File Description ? SHEAR TRANSFORMER OUT LINES

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W04

TRANSF.M03

SHEAR SHEETMETAL FOR TRANSFORMER WITH SHEAR (SMALL SHEAR) AT
SHEETMETAL SHOP

PER TRANSFORMER

OFG: 4 03-MAR-83

U.S.S. CAPE COD

* WORK ORDER 3070-339

* SKETCH 737

* 20 GAUGE GALV. SHEETMETAL

* DIMENSIONS: 7 1/2' X 6' TO 10' X 4 1/2'

* ROUGH CUT TRANSFORMER ENDS ON SHEAR

FITTER BEGINS AT SMALLSHEAR

1	POSITION 4X3 SHEETMETAL2 FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL2 PROCESS	A1 B0 G1 M1 X6 I0 A0	1.00	90.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 2 STEPS	A1 B0 G1 A3 B0 P6 A0	1.00	110.
4	PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL PROCESS F 5	A1 B0 G1 M1 X6 I0 A0	5.00	450.
5	PLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM SMALLSHEAR TO WORKTABLE	A1 B0 G1 A67 B3 P1 A0	1.00	730.
			TOTAL TMU	1630.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? FORM TRANSFORMER LAP

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W04

TRANSF ~~XXXX~~

FORM SHEETMETAL FOR TRANSFORMER LAP WITH LAPOUT AT SHEETMETAL
SHOP

PER TRANSFORMER

OFG: 4 09-MAR-83

U.S.S. CAFE COD

* WORK ORDER 3070-339

* SKETCH 737

* 20 GAUGE GALV. SHEETMETAL

* DIMENSIONS: 7 1/2'X6' TO 10'X4 1/2'X14'L

* LAP-OUT 1 END (2SIDES, BOTTOM, TOP)

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 PUSH LAPOUT-SWITCH AT LAPOUT PROCESS F 3

A1 B0 G1 M1 X16 I0 A0 3.00 970.

3 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

4 MOVE CART FROM LAPOUT TO PITTSBURGH

A1 B0 G1 A6 B0 P1 A0 1.00 90.

TOTAL TMU 880.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

11940

File Description ? FORM PITTSBURGH LOCK ON TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W04 TRANSF ██████████
FORM SHEETMETAL FOR TRANSFORMER LOCK WITH PITTSBURGH AT
SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 09-MAR-83
U.S.S. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS:7 1/2'X6' TO 10'X4 1/2'X14'L
* FORM PITTSBURGH LOCK ON 1 SIDE OF MACH
* FORM EDGE ON OTHER SIDE OF MACH
FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	PUSH PITTSBURGH-BUTTON AND FORM PITTSBURGH PROCESS F 2	A1 B0 G1 M1 X32 I0 A0	2.00	700.
3	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH F 2	A1 B0 G1 M1 X0 I3 A0	2.00	120.
4	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 2 STEPS F 2	A3 B0 G1 M1 X0 I3 A0	2.00	160.
5	PLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM PITTSBURGH TO CORNICEBRAKE	A1 B0 G1 A24 B0 P1 A0	1.00	270.
			TOTAL TMU	1470.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

13,410

Please input file <TRANSF.M07> ?

File Description ? BEND TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W04

TRANSF ~~XXXXXXXXXX~~

BEND SHEETMETAL FOR TRANSFORMER WITH CORNICE BRAKE AND FAN BRAKE
AT SHEETMETAL SHOP

PER TRANSFORMER

OFG: 4 09-MAR-83

U.S.S. CAPE COD

* WORK ORDER 3070-339

* SKETCH 737

* 20 GAUGE GALV. SHEETMETAL

* DIMENSIONS: 7 1/2'X6' TO 10'X4 1/2'X14'L

* BEND TRANSFORMER SIDES UP 90 DEGREES

FITTER BEGINS AT CORNICEBRAKE

1	POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	OPERATE CORNICEBRAKE-LEVER PROCESS F 2		
	A1 B0 G1 M6 X42 I0 A0	2.00	1000.
3	REPLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT CORNICEBRAKE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
4	MOVE CART FROM CORNICEBRAKE TO PANBRAKE		
	A1 B0 G1 A10 B0 P1 A0	1.00	130.
5	POSITION SHEETMETAL2 FROM CART AT PANBRAKE TO PANBRAKE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
5	FASTEN (JAWS) NUT TO SHEETMETAL AT PANBRAKE 5 WRIST-STROKES USING HAND		
	A1 B0 G1 A1 B0 F1 F16 A0 B0 P0 A0	1.00	200.
7	OPERATE PANBRAKE-LEVER PROCESS		
	A1 B0 G1 M6 X96 I0 A0	1.00	1040.
8	REPLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
9	MOUE CART FROM PANBRAKE TO WORKTABLE		
	A1 B0 G1 A54 B3 F1 A0	1.00	600.

TOTAL TMU 3470.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

16880

SHEET METAL SHAPE

#

17" x 18" TO 20" x 14" x 30" LG TRANSFORMER

FAB	41,420	24
MARK OUT	15,850	10
TOTAL TMU.	57,270	34

File Description ? MARK OUT SHEETMETAL FOR OFFSET TRANSFORMER

Output to line-Printer <Y or n> ? N

(39, 1)

FIT .W11

TRANSF. ~~MSQ~~

MARK OUT SHEETMETAL FOR
RECTANGULAR TO RECTANGULAR OFFS
SHOP

PER TRANSFORMER

OFG: 4 20-MAY-83

NASSCO SHEETMETAL SHAPE 1

* 18 GAUGE GALV. SHEETMETAL

* 17'X18'X20'X14'X30' RECTANGULAR TO--

* --RECTANGULAR TRANSFORMER WITH 5' OFFSET

* MARK OUT USING TEMPLATE

FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2		
	A1 B0 G1 A3 B0 P6 A0	2.00	220.
2	POSITION WEIGHTS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 6		
	A1 B0 G1 A6 B0 P6 A0	6.00	840.
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (16)	1.00	2920.
4	POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 1 STEP F 16		
	A1 B0 G1 A3 B0 P6 A0	16.00	1760.
5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 F3) A1 B0 P1 A0 (16)	1.00	680.
6	REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 6		
	A1 B0 G1 A6 B0 P3 A0	6.00	660.
7	MARK CUT LINES FROM TEMPLATE AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (16)	1.00	2920.
8	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 45 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (45)	1.00	2290.
9	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52)	1.00	2640.
10	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	1.00	220.
11	MOUE CART FROM WORKTABLE TO SMALLSHEAR		
	A1 B0 G1 A67 B0 P1 A0	1.00	700.
	TOTAL TMU		15850.

File Description ? SHEAR SHEETMETAL FOR OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 TRANSF.M81
SHEAR SHEETMETAL FOR
RECTANGULAR TO- RECTANGULAR OFFSET TRANSFORMER WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1
* 18 GAUGE GALV. SHEETMETAL
* 17'X18' TO 20'X14'X30' RECTANGULAR TO--
* RECTANGULAR TRANSFORMER WITH 5' OFFSET
* COMPLETE SHEARING AT WORKTABLE --
* --WITH UNI-SHEAR
FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SHALLSHEAR WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2		
	A1 B0 G1 M1 X6 I0 A0	2.00	180.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 8		
	A1 B0 G1 A1 B0 P6 A0	8.00	720.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8		
	A1 B0 G1 M1 X6 I0 A0	8.00	720.
5	REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 10 STEPS F 2		
	A1 B0 G1 A16 B0 P3 A0	2.00	420.
6	MOVE CART FROM SMALLSHEAR TO WORKTABLE		
	A1 B0 G1 A67 B3 P1 A0	1.00	730.
		TOTAL TMU	3050.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT SHEETMETAL FOR OFFSET TRANSPORT

output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

TRANSF.M82

CUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER
WITH SNIPS AT SHEETMETAL SHOP
PER TRANSFORMER

OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1

* 18 GAUGE GALV. SHEETMETAL

* 17'X18' TO 20'X14'X30'L RECTANGULAR --

* TO RECTANGULAR TRANSFORMER. WITH 5' OFFSET

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE		
	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE UNISHEAR AT WORKTABLE PROCESS F 4		
	A1 B0 G1 M6 X173I0 A0	4.00	7240.
4	CUT CORNERS ONL SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P3 C3) A1 B0 P1 A0 (16)	1.00	1160.
5	FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (12)	1.00	880.
6	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
7	MOUE CART FROM WORKTABLE TO LAPOUT		
	A1 B0 G1 A54 B0 P1 A0	1.00	570.
		TOTAL TMU	12260.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

15,310

File Description ? FORM LAP ENDS FOR OFFSET TRANSFORMER

Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11

TRANSF.M83

FORM LAP ENDS FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER
WITH LAPOUT MACHINE AT SHEETMETAL SHOP
PER TRANSFORMER

OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1

* 18 GAUGE GALV. SHEETMETAL

* 17'X18' TO 20'X14'X30' RECTANGULAR TO--

* RECTANGULAR TRANSFORMER WITH 5' OFFSET

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

2 PUSH LAPOUT-SWITCH PROCESS F 2

A1	B0	G1	M1	X16	I0	A0	2.00	380.
----	----	----	----	-----	----	----	------	------

3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 2 STEPS
F 2

A3	B0	G1	M1	X0	I3	A0	2.00	160.
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4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

5 MOUE CART FROM LAPOUT TO PITTSBURGH

A1	B0	G1	A6	B0	F1	A0	1.00	90.
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TOTAL TMU 1070.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

16,380

File Description ? FORM PITTSBURGH LOCK FOR OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 TRANSF ~~184~~

FORM PITTSBURGH LOCK FOR
RECTANGULAR TO RECTANGULAR OFFSE
AT SHEETMETAL SHOP SHOP
PER TRANSFORMER

OFG: 4 20-MAY-83

NASSCO SHEETMETAL SHAPE 1

* 18 GAUGE GALV. SHEETMETAL

* 17'X18' TO 20'X14'30'L RECTANGULAR TO --

* --RECTANGULAR TRANSFORMER WITH 5' OFFSET

FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 PUSH FITTSBURGH-BUTTON PROCESS F 4

A1 B0 G1 M1 X32 I0 A0 4.00 1400.

3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 2
STEPS F 4

A3 B0 G1 M1 X0 I3 A0 4.00 320.

4 REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

5 MOVE CART FROM PITTSBURGH TO CORNICEBRAKE

A1 B0 G1 A24 B0 F1 A 0 1.00 270.

TOTAL TMU 2430.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

18,810

19500

File Description ? BEND SHEETMETAL FOR OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

TRANSF.M85

BEND SHEETMETAL FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER
WITH CORNICE-BRAKE AT SHEETMETAL SHOP
PER TRANSFORMER

OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1

* 18 GAUGE GALV. SHEETMETAL

* 17'X18' TO 20'X14'X30' RECTANGULAR TO--

* --RECTANGULAR TRANSFORMER WITH 5' OFFSET

* BEND UP SIDES OF TRANSFORMER 90 DEGREES

FITTER BEGINS AT CORNICEBRAKE

1 POSITION SHEETMETAL2 FROM CART AT CORNICEBRAKE TO
CORNICEBRAKE WITH 4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 OPERATE CORNICEBRAKE-LEVER PROCESS

A1 B0 G1 M6 X42 I0 A0 1.00 500.

3 POSITION SHEETMETAL FROM CORNICEBRAKE TO CORNICEBRAKE

A1 B0 G1 A1 B0 P6 A0 1.00 90.

4 OPERATE CORNICEBRAKE-LEVER PROCESS

A1 B0 G1 M6 X42 I0 A0 1.00 500.

5 REPLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT
CORNICEBRAKE WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM CORNICEBRAKE TO PANBRAKE

A1 B0 G1 A10 B0 P1 A0 1.00 130.

TOTAL TMU 1470.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

20,280

20980

File Description ? BEND LAP ENDS FOR OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 TRANSF.M86
BEND LAP ENDS FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER
WITH PAN-BRAKE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 07-JUL-83

NASSCO SHEETMETAL SHAPE 1
* 18 GAUGE GLAV. SHEETMETAL
* 17'X18' TO 20'X14'X30' RECTANGULAR TO --
* --RECTANGULAR TRANSFORMER WITH 5' OFFSET
* KINK UP LAP ENDS TO OFFSET ANGLE
FITTER BEGINS AT PANBRAKE

1	POSITION SHEETMETAL2 FROM CART AT PANBRAKE TO PANBRAKE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE 4 WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE PF 2 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 F16) A1 B0 P1 A0 (2)	1.00	440.
3	OPERATE PANBRAKE-LEVER PROCESS F 2	A1 B0 G1 M6 X96 I0 A0	2.00	2080.
4	POSITION SHEETMETAL FROM PANBRAKE TO PANBRAKE F 6	A1 B0 G1 A1 B0 P6 A0	6.00	540.
5	OPERATE PANBRAKE-LEVER PROCESS F 6	A1 B0 G1 M6 X96 I0 A0	6.00	6240.
6	REPLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
7	MOUE CART FROM PANBRAKE TO WORKTABLE	A1 B0 G1 A54 B3 P1 A0	1.00	600.
TOTAL TMU				10400.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

30,680

File Description ? ASSEMBLE OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 TRANSF.M87

ASSEMBLE SHEETMETAL FOR
RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER WITH HAMMER AT
SHEETMETAL SHOP

PER TRANSFORMER

OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1

* 19 GAUGE GALV. SHEETMETAL

* 17'X18' TO 20'X14'X30'L RECTANGULAR TO--

* --RECTANGULAR TRANSFORMER WITH 5' OFFSET

* FASTEN TRANSFORMER TOP AND BOTTOM--

* -- WITH PITTSBURGH

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FASTEN [FLATTEN] SHEETMETAL CORNERS TO SHEETMETAL AT
WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND
ASIDE PF 4 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (4) 1.00 320.

3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL
[BOTTOM] AT WORKTABLE WITH 4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

4 POSITION SEETINGTOOL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 12

A1 B0 G1 A1 B0 P6 A0 12.00 1080.

5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (12) 1.00 880.

6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F10) A1 B0 F1 A0 (12) 1.00 1360.

7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 20 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F32) A1 B0 P1 A0 (20) 1.00 6640.

8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 10740.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

41,420

1/ SHEET METAL SHAPE # 1

18x19 to 17x20x31" LG TRANSFORMER

FAB	13,840	8 MIN.
MARK OUT	14,330	6 MIN.
WELD	29,290	17 MIN.
TOTAL	57,500	34

File Description ? MARK OUT TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1)

FIT . W 1 1 TRANSF.M70
MARK OUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER
WITH AWL AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 18-MAY-83

NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 18'X19' TO 17'X20'X31'L RECTANGULAR --
* --TO RECTANGULAR TRANSFORMER
* OFFSET 4'
FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 4 STEPS F 4	A1 B0 G1 A6 B0 P6 A0	4.00	560.
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)	A1 B0 G1 (A1 B0 F1 R16) A1 B0 P1 A0 (16)	1.00	2920.
4	POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 2 STEPS F 6	A1 B0 G1 A3 B0 P6 A0	6.00	660.
5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)	A1 B0 G1 (A1 B0 PO F3) A1 B0 P1 A0 (6)	1.00	280.
6	REMOVE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 6	A1 B0 G1 A6 B0 P1 A0	6.00	540.
7	REMOVE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2	A1 B0 G1 A6 B0 P1 A0	2.00	180.
8	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (16)	1.00	2920.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 45 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (45)	1.00	2290.
10	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52)	1.00	2640.
11	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
12	MOUE CART FROM WORKTABLE TO 14FT. SHEAR	A1 B0 G1 A81 B0 P1 A0	1.00	840.
			TOTAL TMU	14330.

File Description ? SHEAR SHEETMETAL FOR OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

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(39, 1)
FIT      .W11                                TRANSF.M71
        SHEAR SHEETMETAL FOR
RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER WITH 14FT. SHEAR AT
SHEETMETAL SHOP
PER TRANSFORMER                                OFG: 4 19-MAY-83
        NASSCO SHEETMETAL SHAPE 1
        * 11 GAUGE GALV. SHEETMETAL
        * 18'X19' TO 17'X20'X31'L RECTANGULAR --
        * --TO RECTANGULAR OFFSET TRANSFORMER
        * OFFSET 4'
        FITTER BEGINS AT 14FT. SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT. SHEAR TO
  14FT. SHEAR WITH 4 STEPS F 2
                                A1 B0 G1 A6 B0 P6 A0          2.00      280.
2 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 2
                                A1 B0 G1 M1 X3 I0 A0          2.00      120.
3 POSITION SHEETMETAL FROM 14FT. SHEAR TO 14FT. SHEAR F 7
                                A1 B0 G1 A1 B0 P6 A0          7.00      630.
4 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 7
                                A1 B0 G1 M1 X3 I0 A0          7.00      420.
5 REPLACE SHEETMETAL2 FROM 14FT. SHEAR TO CART AT
  14FT. SHEAR WITH 10 STEPS F 2
                                A1 B0 G1 A16 B0 P3 A0          2.00      420.
6 MOVE CART FROM 14FT. SHEAR TO WORKTABLE
                                A1 B0 G1 A81 B3 P1 A0          1.00      870.

                                TOTAL TMU                      2740.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT SHEETMETAL FOR OFFSET TRANSFORMER

Output to line-Printer <Y or N> ? N

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(39, 1)
FIT .W11 TRANSF.M72
CUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER
WITH SABER-SAW AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 19-MAY-83
NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 18'X19' TO 17'X20'X31'L RECTANGULAR --
* -- TO RECTANGULAR OFFSET TRANSFORMER
* OFFSET 4'
FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL FROM CART AT WORKTABLE TO
  WORKTABLE WITH 4 STEPS
      A1 B0 G1 A6 B0 P6 A0 1.00 140.
2 MOVE SABER-SAW2 FROM TOOLROOM TO WORKTABLE
      A96 B0 G1 A96 B3 F1 A0 1.00 1970.
3 FASTEN NUT [SABER BLADE] TO SHEETMETAL AT WORKTABLE 4
  WRIST-TURNS USING ALLEN-WRENCH AT WORKTABLE AND ASIDE
  PF 2(4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 F10) A1 B0 P1 A0 (2) 1.00 320.
4 OPERATE SABER-SAW AT WORKTABLE PROCESS F 4
      A1 B0 G1 M6 X67 I0 A0 4.00 3000.
5 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 4
  STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4
  5 6 7 )
      A1 B0 G1 (A1 B0 P0 F10) A1 B0 P1 A0 (12) 1.00 1360.
6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
  WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0 2.00 220.
7 MOVE CART FROM WORKTABLE TO 14FT HYDROPRESSBRAKE
      A1 B0 G1 A96 B0 P1 A0 1.00 990.

TOTAL TMU 8000.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

10,740

File Description ? BEND SHEETMETAL FOR OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

1)
F I T .W11 TRANSF.M73
BEND SHEETMETAL FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER
WITH 14 FT. HYDRO-PRESS-BRAKE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 19-MAY-83

NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 18'X19' TO 17'X20'X31"L RECTANGULAR--
* --TO RECTANGULAR OFFSET TRANSFORMER
* OFFSET 4'
* BEND UP SIDES OF TRANSFORMER 90 DEGREES
* KINK UP LAP ENDS TO OFFSET ANGLE
* COMPLETE IN WELD BOOTH AREA
* SEE MWELD...TRANSF.M74
FITTER BEGINS AT 14FT HYDROPRESSBRAKE

1	POSITION SHEETMETAL FROM CART AT 14FT HYDROPRESSBRAKE TO 14FT HYDROPRESSBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH 14FT HYDROPESSBRAKE-FOOTPEDAL PROCESS F 2		
	A1 B0 G1 M1 X24 I0 A0	2.00	540.
3	POSITION SHEETMETAL FROM 14FT HYDROPRESSBRAKE TO 14FT HYDROPRESSBRAKE F 6		
	A1 B0 G1 A1 B0 P6 A0	6.00	540.
4	PUSH 14FT HYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2		
	A1 B0 G1 M1 X24 I0 A0	2.00	540.
5	REPLACE SHEETMETAL FROM 14FT HYDROPRESSBRAKE TO CART AT 14FT HYDROPRESSBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
6	MOVE CART FROM 14FT HYDROPRESSBRAKE TO WORKTABLE		
	A1 B0 G1 A96 B3 P1 A0	1.00	1020.
	TOTAL TMU		3140.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

13840

File Description ? WELD TRANSFORMER

Output to line-printer <Y or N> ? N

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(39, 3)
WELD .W01 TRANSF.M74
WELD TRANSFORMER WITH ARC (STICK) WELDER AT SHEETMETAL SHOP
WELDING BOOTH
PER TRANSFORMER OFG: 4 19-JUL-83
WELDING NASSCO SHEETMETAL SHAPE 1
* 11 GAUGE GALV. SHEETMETAL
* 18'X19' TO 17'X20'X31'L RECTANGULAR-
* --TO RECTANGULAR OFFSET, OFFSET 4'
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
  AT WORKTABLE WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
      A1 B0 G1 A131B3 P1 A0 1.00 1370.
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
  WELDTABLE WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0 2.00 220.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
  WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
      A3 B0 G1 M1 X0 IO A32 1.00 370.
5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT
  WELDMACHINES TO ON AT WELDMACHINES
      A1 B0 G1 M3 X0 IO A1 1.00 60.
6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
  TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2
      A3 B3 G1 A1 B0 P6 A0 2.00 280.
7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2
      A1 B0 G1 M1 X10 IO A0 2.00 260.
8 WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1
  WRIST-TURN USING HAND F 14
      A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 14.00 980.
9 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 14
      A1 B0 G1 M1 X0 IO A1 14.00 560.
10 WELDOR POSITION STINGER1 FROM WELDTABLE TO SHEETMETAL
  ASSEMBLY AT WELDTABLE F 14
      A1 B0 G1 A1 B0 P6 A0 14.00 1260.
11 OPERATE WELD STINGER1 AT WELDTABLE PTIME 65 S F 10
      A1 B0 G1 M6 X173IO A0 10.00 18100.
13 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 14
      A1 B0 G1 M1 X0 IO A1 14.00 560.
13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
  WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND
  ASIDE F 5
      A1 B0 G1 A1 B0 P0 L16 A1 B0 P1 A0 5.00 1050.
WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
20 (4 5 6 7)
      A1 B0 G1 (A1 B0 P1 C10) A1 B0 F1 A0 (20) 1.00 2440.

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IKANS + M. 14

15	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
16	FITTER MOVE CART FROM WELDTABLE TO WORKTABLE	A1 B0 G1 A131B0 F1 A0	1.00	1340.
			TOTAL TMU	29290.

Type D,EM,CT,EW,EX,L,LD,LS,H,T,W <or H for help> ?

SHEET METAL SHAPE

2

10" x 5" x 11" LG STRAIGHT SECTION

FAB	13160	8 MIN
MARK OUT	11,730	7 MIN
TOTAL T.M.U.	24,890	15 MIN.

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Output to line-printer <Y or N> ? N

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(39, 3)
FIT .W04 STRGHT .W04
MARK OUT SHEETMETAL FOR 11 STRAIGHT WITH AWL AT SHEETMETAL SHOP
PER 11' STRAIGHT OFG: 4 10-MAR-83
NASSCO SHEETMETAL PART # 2
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1945
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS : 10'X5'X11'L
* LAYOUT STRAIGHT SECTION WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

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MARK	DESCRIPTION	TIME (TMU)	COST (\$)
1	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE USING STEEL-TAPE AND ASIDE PF 4 (4 5 6 7)	1.00	1400.
2	MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)	1.00	640.
	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE WITH 3 STEPS PF 2 (4 5 6)	1.00	260.
4	MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 2 (4 5 6 7)	1.00	400.
5	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 4 (4 5 6)	1.00	300.
6	MARK CORNERS FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)	1.00	360.
7	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)	1.00	640.
8	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 29 (4 5 6 7)	1.00	1490.
	TOTAL TMU		5490.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

8 SHTS.

File Description ? MARK OUT 11' STRAIGHT SECTION (TOP PIECE)

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W04 STRGHT ~~WORK~~
MARK OUT SHEETMETAL FOR STRAIGHT SECTION TOP PIECE WITH AWL AT
SHEETMETAL SHOP
PER STRAIGHT OFG: 4 10-MAR-83

NASSCO SHEETMETAL PART # 2
* HULL 418
* DRAWING 501-294
* V2-92008
* V6-1945
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS : 10'X5'X11'L
* LAYOUT TOP PIECE WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)			
	A1 B0 G1 (A1 B0 F1 M32) A1 B0 P1 A0 (4)	1.00	1400.	
2	MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)			
	A1 B0 G1 (A1 B0 F1 R3)A1 B0 P1 A0 (4)	1.00	240.	
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 2 (4 5 6)			
	A1 B0 G1 (A1 B0) P6)A0 (2)	1.00	160.	
4	MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)			
	P1 R16)A1 B0 P1 (2)	1.00	400.	
5	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 4 (4 5 6)			
	A1 B0 G1 (A1 B0 P6)A0 (4)	1.00	300.	
6	MARK CORNERS FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AND ASIDE PF 4 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 B6) A1 B0 P1 A0 (4)	1.00	360.	
7	MARK OUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (8)	1.00	440.	
8	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 16 (4,5 6 7)			
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (16)	1.00	840.	
9	MARK IDENTIFICATION ON SHEETMETAL AT WOEKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R23)A1 B0 P1 A0 (25)	1.00	1290.	
10	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS			
	A1 B0 G1 A6 B0 P3 A0	1.00	110.	
11	MOVE CART FROM WORKTABLE TO SHALLSHEAR			
	A1 B0 G1 A67 B0 P1 A0	1.00	700.	
	TOTAL TMU		6240.	

Please input file <STRGJT.M11> ?

File Description ? SHEAR 11' STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W04 STRGHT-~~STRGHT~~
SHEAR SHEETMETAL FOR 11' STRAIGHT SECTION WITH SMALL SHEAR AT
SHEETMETAL SHOP
PER STRAIGHT OFG: 4 10-MAR-83
NASSCO SHEETMETAL PART # 2
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1945
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS : 10'X5'X11'L
* SMALL 8 FT. SHEAR
FITTER BEGINS AT SMALLSHEAR

1 POSITION 4X8 SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2
A1 B0 G1 A6 B0 F6 A0 2.00 230.
2 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL
PROCESS
A1 B0 G1 M1 X6 I0 A0 1.00 90.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 2
A1 B0 G1 A1 B0 P6 A0 2.00 180.
4 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL
PROCESS F 2
A1 B0 G1 M1 X6 I0 A0 2.00 130.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A3 1.00 110.
6 MOVE CART FROM SMALLSHEAR TO WORKTABLE
A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 1570.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Output to line-printer <Y or N> ? N

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS	A1 B0 G1 A6 B0 F3 A0	1.00	110.
2	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C3) A1 B0 P1 A0 (12)	1.00	880 .
3	FASTEN (FLATTEN) SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 36 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A# (36)	1.00	1480.
4	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
5	MOVE CART FROM WORKTABLE TO LAPOUT	A1 B0 G1 A54 B0 P1 A0	1.00	570.
		TOTAL TMU		3150.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

4720

File Description ? LAPOUT 11' STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W04

STRGHT

FORM SHEETMETAL FOR 11" STRAIGHT SECTION WITH LAPOUT MACHINE AT
SHEETMETAL SHOP

PER STRAIGHT

OFG: 4 10-MAR-83

NASSCO SHEETMETAL PART # 2

* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1945
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS : 10'X5'X11'L
* LAPOUT IS ROTARY MACHINE
* LAPOUT 1 END OF STRAIGHT SECTION

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

2 PUSH LAPOUT-SWITCH PROCESS F 2

A1	B0	G1	M1	X16	I0	A0	2.00	380.
----	----	----	----	-----	----	----	------	------

3 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

4 MOVE CART FROM LAPOUT TO PITTSBURGH

A1	B0	G1	A6	B0	P1	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

TOTAL TMU 200.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

5520

Type D,EM,CT,EX,T,W <or H for help> ? T

Please input file <STRGHT.M14> ?

File Description ? FORM PITTSBURGH ON 11' STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W04

STRGHT ~~STRGHT~~

FORM SHEETMETAL FOR 11' STRAIGHT SECTION WITH PITTSBURGH MACHINE
AT SHEETMETAL SHOP
PER STRAIGHT

OFG: 4 10-MAR-83

NASSCO SHEETMETAL PART # 2

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1945

* 20 GAUGE GALV. SHEETMETAL

* DIMENSIONS : 10'X5'X11'L

* FORM PITTSBURGH ON BOTTOM SECTION

* FORM EDGE ON TOP SECTION

FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH		
	A1 B0 G1 A1 B0 P3 A0	1.00	60.
2	PUSH PITTSBURGH-BUTTON PROCESS F 2		
	A1 B0 G1 M1 X32 I0 A0	2.00	700.
3	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH F 2		
	A1 B0 G1 M1 X0 I3 A0	2.00	120.
4	PUSH GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 4 STEPS		
	F 3		
	A6 B0 G1 M1 X0 I3 A0	3.00	330.
5	PLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH		
	WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM PITTSBURGH TO LEAFBRAKE		
	A1 B0 G1 A32 B0 P1 A0	1.00	350.
		TOTAL TMU	1670.

Type D,EM,CT,EX,T,W <or H for help> ?

71.90

INVALID ENTRY IN CSCAN

Invalid command.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? T

Please input file <STRGHT.M15> ?

File Description ? BEND 11' STRAIGHT 'SECTION

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W04

STRGHT ~~STRGHT~~

BEND SHEETMETAL FOR 11' STRAIGHT SECTION WITH LEAF BRAKE AT
SHEETMETAL SHOP

PER STRAIGHT

OFG: 4 10-MAR-83

NASSCO SHEETMETAL PART # 2

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1945

* 20 GAUGE GALV. SHEETMETAL

* BEND SIDES UP 90 DEGREES

FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO
LEAFBRAKE WITH 4 STEPS

A1	B0	G1	A6	B0	P6	A0	1.00	140.
----	----	----	----	----	----	----	------	------

2 OPERATE LEAFBRAKE-LEVER PROCESS F 2

A1	B0	G1	M6	X16	I0	A0	2.00	430.
----	----	----	----	-----	----	----	------	------

3 PLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LEAFBRAKE
WITH 4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

4 MOVE CART FROM LEAFBRAKE TO WORKTABLE

A1	B0	G1	A81	B3	P1	A0	1.00	370.
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TOTAL TMU 1600.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

8790

File Description ? ASSEMBLE 11' STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W11 STRGHT.M16
ASSEMBLE SHEETMETAL PIECES FOR 11' STRAIGHT SECTION WITH HAMMER
AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 2
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1945
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 10'X5'X11' LG
* SECURE TOP PIECE TO BOTTOM PIECE
* SECURE PIECES WITH PITTSBURGH
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (12)	1.00	880.
3	POSITION SHEETMETAL [TOP] TO SHEETMETAL [BOTTOM] AT WORKTABLE WITH 2 STEPS	A1 B0 G1 A3 B0 P6 A0	1.00	110.
4	PLACE SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	A1 B0 G1 A1 B0 P3 A0	4.00	240.
5	FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (4)	1.00	320.
6	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F10) A1 B0 P1 A0 (4)	1.00	480.
7	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F32) A1 B0 P1 A0 (6)	1.00	2020.
8	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS	A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0	1.00	100.
TOTAL TMU				4370.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

13,160

2

SHEET METAL SHAPE

18" X 12" X 18" LG. STRAIGHT SECTION

FAB	16,000	10 MIN.
MARK OUT	13,300	8 MIN.
TOTAL TMU.	29,300	18 MIN.

File Description ? MARK OUT SHEETMETAL FOR STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

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(39, 1)
FIT .W11 STRGHT.M50
MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL
SHOP
PER STRAIGHT SECTION OFG: 4 13-MAY-83
NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE GALV. SHEETMETAL
* 18'X12'X18'L STRAIGHT SECTION
* MARK OUT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING
  STEEL-TAPE AT WORKTABLE AND ASIDE
      A1 B0 G1 A1 B0 P1 M32 A1 B0 P1 A0 1.00 380.
2 MARK DIMENSION FROM STEEL-TAPE TO SHEETMETAL AT
  WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF
  4 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (4) 1.00 240.
3 MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF
  WORKTABLE WITH 9 STEPS
      A1 B0 G1 A16 B0 P1 A0 1.00 190.
4 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
  STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (3) 1.00 1060.
5 MARK DIMENSIONS FROM STEEL-TAPE TO SHEETMETAL AT
  WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF
  6 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (6) 1.00 340.
6 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL WITH
  1 STEP F 5
      A1 B0 G1 A3 B0 P6 A0 5.00 550.
7 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
  5 DIGITS USING AWL AT WORKTABLE WITH 1 STEP AND ASIDE
  PF 5 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 A3) R16A1 B0 P1 A0 (5) 1.00 450.
8 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
  AT WORKTABLE WITH 3 STEPS
      A1 B0 G1 A6 B0 P6 A0 1.00 140.
9 POSITION CORNER TEMPLATE FROML; SHEETMETAL TO
  SHEETMETAL AT WORKTABLE F 7
      A1 B0 G1 A1 B0 P6 A0 7.00 630.
10 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2
  DIGITS USING AWL AT WORKTABLE AND ASIDE WITH 1 STEP
      A1 B0 G1 A1 B0 P1 R6 A1 B0 P1 A0 1.00 120.
11 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2
  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 7 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (7) 1.00 600.
12 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 4
      A1 B0 G1 A1 B0 P6 A0 4.00 360.
13 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
  HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )

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	A1 B0 G1 A1 B0 P0 F3)A1 B0 P1 A0 (4)	1.00	200.
14	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (3)	1.00	580.
15	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (8)	1.00	680 .
6	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 15 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (15)	1.00	790 .
17	MOVE CORNER TEMPLATE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS		
	A1 B0 G1 A16 B0 P1 A0	1000	190.
18	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE		
	A1 B0 G1 A1 B0 P6 A0	1.00	90.
19	MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (8)	1.00	680 .
20	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (8)	1.00	680.
21	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 15 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (15)	1.00	790 .
22	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)		
	A1 B0 G1 (A1 B0 F1 R3) A1 B0 P1 A0 (52)	1.00	2640.
3	PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220 .
24	MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR		
	A1 B0 G1 A67 B0 P1 A0	1.00	700.
TOTAL TMU			13300.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

STRGHT.M51

SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP

PER. STRAIGHT SECTION

OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 2

* 18 GAUGE GALV. SHEETMETAL

* 18'X12'X18' L STRAIGHT SECTION

* SHEAR TOP AND BOTTOM PIECES FOR STRAIGHT
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2

A1	B0	G1	A6	B0	P6	A0	2.00	280.
----	----	----	----	----	----	----	------	------

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2

A1	B0	G1	M1	X6	I0	A0	2.00	180.
----	----	----	----	----	----	----	------	------

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 2

A1	B0	G1	A1	B0	P6	A0	2.00	180.
----	----	----	----	----	----	----	------	------

4 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 10 STEPS F 2

A1	B0	G1	A16	B0	P3	A0	2.00	420.
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5 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE

A1	B0	G1	A67	B3	P1	A0	1.00	730.
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TOTAL TMU							1790.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 STRGHT.M52
CUT SHEETMETAL FOR STRAIGHT SECTION WITH SNIPS AT SHEETMETAL SHOP
PER STRAIGHT SECTION OFG: 4 13-MAY-83
NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE GALV. SHEETMETAL
* 18'X12'X18'L STRAIGHT SECTION
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 16 (4 5 6 7) <i>12</i>		
	A1 B0 G1 (A1 B0 P3 C3) A1 B0 P1 A0 (16)	1.00	1160.
3	FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (16)	1.00	1160.
4	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE F 2		
	A1 B0 G1 A1 B0 P3 A0	2.00	120.
5	MOVE CART WITH SHEETMETAL FROM WORKTABLE TO LAPOUT		
	A1 B0 G1 A54 B0 P1 A0	1.00	570.
	TOTAL TMU		3230.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

5020

File Description ? FORM LAP END ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(3 9 , 1)

FIT, W11

STRGHT.M53

FORM LAP END ON STRAIGHT SECTION WITH LAPOUT (ROTARY MACHINE) AT
SHEETMETAL SHOP

PER STRAIGHT SECTION

OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 2

* 18 GAUGE GALV, SHEETMETAL

* 18'X12'X18' L STRAIGHT SECTION

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT LWITH 4
STEPS F 2

AL	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

2 PUSH LAPOUT-SWITCH PROCESS F 2

A1	B0	G1	M1	X16	IO	A0	2.00	380.
----	----	----	----	-----	----	----	------	------

3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 2 STEPS
F 2

A3	B0	G1	M1	X0	I3	A0	2.00	160.
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4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

5 MOVE CART WITH SHEETMETAL FROM LAPOUT TO PITTSBURGH

A1	B0	G1	A6	B0	P1	A0	1.00	90.
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TOTAL TMU							1070.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

6090

File Description ? BEND SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

STRGHT.M55

BEND SHEETMETAL FOR STRAIGHT SECTION WITH LEAFBRAKE AT SHEETMETAL
SHOP

PER STRAIGHT SECTION

OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 2

* 18 GAUGE GALV, SHEETMETAL

* 18'X12'X18'L STRAIGHT SECTION

* BEND UP SIDES ON STRAIGHT 90 DEGREES

FITTER BEGINS AT LEAFBRAKE

- 1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO
LEAFBRAKE WITH 4 STEPS

A1	B0	G1	A6	B0	P6	A0	1.00	140.
----	----	----	----	----	----	----	------	------

- 2 OPERATE LEAFBRAKE-LEVER PROCESS

A1	B0	G1	M6	X16	IO	A0	1.00	240.
----	----	----	----	-----	----	----	------	------

- 3 POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE

A1	B0	G1	A1	B0	P6	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

- 4 OPERATE LEAFBRAKE-LEVER PROCESS

A1	B0	G1	M6	X16	IO	A0	1.00	240.
----	----	----	----	-----	----	----	------	------

- 5 REPLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LEAFBRAKE
WITH 4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

MOVE CART WITH SHEETMETAL FROM LEAFBRAKE TO WORKTABLE

A1	B0	G1	A81	B3	P1	A0	1.00	870.
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TOTAL TMU 1690.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

9830

File Description ? ASSEMBLE STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

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(39, 1)
FIT, W11 STRGHT.M56
ASSEMBLE STRAIGHT SECTION WITH HAMMER AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 21-JUL-83
NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE GALV. SHEETMETAL
* 18'X12'X18'L STRAIGHT SECTION
* FLATTEN LAP ENDS
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 PO F6) A1 B0 P1 A0 (12) 1.00 880.
3 POSITION SHEETMETAL [TOP] TO SHEETMETAL [BOTTOM] AT
  WORKTABLE WITH 2 STEPS
      A1 B0 G1 A3 B0 P6 A0 1.00 110.
4 PLACE SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 6
      A1 B0 G1 A1 B0 P3 A0 6.00 360.
5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 PO F6) A1 B0 P1 A0 (6) 1.00 460.
6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES
  USING HAMMER AT WORKTABLE. AND ASIDE PF 6 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 PO F10) A1 B0 P1 A0 (6) 1.00 700.
7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 PO F32) A1 B0 P1 A0 (10) 1.00 3340.
8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
      A0 B0 GO A0 B0 PO T10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 6170.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

16,000

SHEET METAL SHAPE #2 L

10"X6"X16"LG. STRAIGHT SECTION

C	FAB	8230	5 MIN
	MARK OUT	11760	7 MIN.
	WELD	16900	10 MIN.
	TOTAL TMU	36890	22 MIN.

File Description ? MARK OUT SHEETMETAL FOR STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11

STRGHT.M80

MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL SHOP

PER STRAIGHT SECTION

OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 2

* 11 GAUGE GALV. SHEETMETAL

* 10'X6'X16' STRAIGHT SECTION

* MARK OUT WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

- 1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (4) 1.00 1400.
- 2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 10 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (10) 1.00 540.
- 3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 5
A1 B0 G1 A1 B0 P6 A0 5.00 450.
- 4 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)
AL B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (5) 1.00 940.
- 5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 10
A1 B0 G1 A1 B0 P6 A0 10.00 900.
- 6 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 10 (4 5 6 7)
A1 B0 G1 (A1 E0 P1 R6) A1 B0 F1 A0 (10) 1.00 840.
- 7 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4
A1 B0 G1 A1 B0 P6 A0 4.00 360.
- 8 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 F0 F3) A1 B0 P1 A0 (4) 1.00 200.
- 9 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (5) 1.00 940.
- 10 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 29 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (29) 1.00 1490.
- 11 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
A1 B0 G1 (A1 B0 F1 R3) A1 B0 P1 A0 (52) 1.00 2640.
- 12 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 F3 A0 2.00 220.
- 13 MOUE CART FROM WORKTABLE TO 14FT.SHEAR
A1 B0 G1 A81 B0 P1 A0 1.00 840.

TOTAL TMU 11760.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for heir> ?

File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 STRGHT.M81
SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH 14FT.SHEAR AT
SHEETMETAL SHOP
PER STRAIGHT SECTION OFG: 4 24-MAY-83
NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 10'X6'X16' STRAIGHT SECTION
* SHEAR STRAIGHT TOP AND BOTTOM PIECES
FITTER BEGINS AT 14FT.SHEAR

1	POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F 2		
	AL B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH 14FT.SHEAR-FOOTPEDAL PROCESS		
	AL B0 G1 M1 X3 I0 A0	1.00	60.
3	POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR F 2		
	AL B0 G1 A1 B0 P6 A0	2.00	180.
4	PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 2		
	AL B0 G1 M1 X3 I0 A0	2.00	120.
5	REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT 14FT.SHEAR WITH 12 STEPS F 2		
	AL P0 G1 A24 B0 P3 A0	2.00	580.
6	MOVE CART FROM 14FT.SHEAR TO WORKTABLE		
	A1 B0 G1 A81 B3 P1 A0	1.00	870.
		TOTAL TMU	2090.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT SHEETMETAL FOR STRAIGHT SECTION

Output. to line-Printer <Y or N> ? N

(39, 1)
FIT .W11 STRGHT.M82
CUT SHEETMETAL FOR STRAIGHT SECTION WITH SABER-SAW AT SHEETMETAL
SHOP
PER STRAIGHT SECTION OFG: 4 24-MAY-83
NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 10'X6'X16' STRAIGHT SECTION
* CUT CORNERS FOR STRAIGHT SECTION
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00.	...
2	MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE	A96 B0 G1 A96 B3 P1 A0	1.00.	1970.
3	OPERATE SABER-SAW AT WORKTABLE PROCESS	A1 B0 G1 M6 X67 I0 A0	1.00	750.
4	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	A1 B0 G11 A6 B0 P3 A0	2.00	220.
5	MOUE CART FROM WORKTABLE TO 14FT HYDROFRESSBRAKE	A1 B0 G1 A96 B0 P1 A0	1.00	990.
TOTAL TMU			4150.	

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

6240

File Description ? BEND SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 STRGHT.M83
BEND SHEETMETAL FOR STRAIGHT SECTION WITH 14FT. HYDRO-PRESS-BRAKE
AT SHEETMETAL SHOP
PER STRAIGHT SECTION OFG: 4 24-MAY-83
NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 10'X6'X16'L STRAIGHT SECTION
* BEND SIDES OF STRAIGHT UP 90 DEGREES
* COMPLETE IN WELD BOOTH AREA
* COMPLETE IN MWELD...SEE STRGHT.M84
FITTER BEGINS AT 14FT HYDROPRESSBRAKE

1	POSITION SHEETMETAL FROM CART AT 14FT HYDROFRESSBRAKE TO 14FT HYDROPRESSBRAKE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	PUSH 14FT HYDROFESSBRAKE-FOOTPEDAL PROCESS		
	A1 B0 G1 M1 X24 I0 A0	1.00	270.
3	POSITION SHEETMETAL FROM 14FT HYDROPRESSBRAKE TO 14FT HYDROPRESSBRAKE WITH 5 STEPS		
	A1 B0 G1 A10 B0 P6 A0	1.00	180.
4	PUSH 14FT HYDROPESSBRAKE-FOOTPEDAL PROCESS		
	A1 B0 G1 M1 X24 I0 A0	1.00	270.
5	REPLACE SHEETMETAL2 FROM 14FT HYDROPRESSBRAKE TO CART AT 14FT HYDROPRESSBRAKE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM 14FT HYDROPRESSRRAKE TO WORKTABLE		
	A1 B0 G1 A96 B3 P1 A0	1.00	1020.
	TOTAL TMU		1990.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

8230

File Description ? WELD STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

39,101)

WELD, W01

STRGHT.M84

WELD STRAIGHT SECTION WITH ARC (STICK) WELDER AT SHEETMETAL SHOP
WELDING BOOTH

PER STRAIGHT SECTION

OFG: 4 21-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 2

- * 11 GAUGE GALV. SHEETMETAL
- * 10'X6'X16'L STRAIGHT SECTION
- * WELDING DONE IN WELD AREA BOOTH
- * WELDOR PERFORMS THE WORK
- * FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

- 1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
- 2 FITTER MOUE CART FROM WORKTABLE TO WELDTABLE
A1 B0 G1 A131 B3 P1 A0 1.00 1370.
- 3 PLACE SHEETMETAL FROM CART AT WELDTABLE TO WELDTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 F3 A0 2.00 220.
- 4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
A3 B0 G1 M1 X0 IO A32 1.00 370.
5. WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES
A1 B0 G1 M3 X0 IO A1 1.00 60.
- 6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2
A3 B3 G1 A1 B0 F6 A0 2.00 280.
- 7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2
A1 B0 G1 M1 X10 IO A0 2.00 260.
- 8 WELDOR FASTEN WELDOR TO STINGER-BUTTON1 AT WELDTABLE 1
WRIST-TURN USING HAND F 7
A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 7.00 490.
- 9 PULL WELDHOO FROM UP AT WELDOR TO DOWN AT WELDOR F 7
A1 B0 G1 M1 X0 IO A1 7.00 280.
- 10 WELDOR POSITION STINGER FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE F 7
A1 B0 G1 A1 B0 P6 A0 7.00 630.
- 11 OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F
5
A1 B0 G1 M6 X17310 A0 5.00 9050.
- 12 PUSH WELDHOO FROM DOWN AT WELDOR TO UP AT WELDOR F7
A1 B0 G1 M1 X0 IO A1 7.00 280.
- 13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND
ASIDE PF 3 (4567)
A1 B0 G1 (A1 B0 P0 L16)A1 B0 P1 A0 (3) 1.00 550.
- 4 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
1 0 (4 5 6 7)
A1 B0 G1 (A1 B0 F1 C10) A1 B0 P1 A0 (10) 1.00 1240.

15	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT									
	WELDTABLE WITH 4 STEPS F 2									
		A1	B0	G1	A6	B0	P3	A0	2.00	220.
16	FITTER MOUE CART FROM WELDTABLE TO WORKTABLE									
		A1	B0	G1	A131B0		P1	A0	1.00	1340.
									TOTAL TMU	16860.

File Description ? WELD STRAIGHT SECTION

Output to line-printer <Y or N> ?

SHEET METAL SHAPE

2

12" x 8" x 35" LG STRAIGHT SECTION

FAKs	16,470	10 MIN.
MARK OUT	12,570	8 MIN.
TOTAL	29,040	17 MIN.

5 SHTS.

EN 242

NAABCO - ANALYSIS OF ERECTION UNIT

PREPARED 09/13/82 1101 PAGE 4

PARAMETER ENDING 01-26-83

CON	CRECTION UNIT	NO.	DESCRIPTION	ENG. STRUCTURE BCHND	ACTUAL	LOTTING SCHED	ACTUAL	CHASK FLAG	START DATE TASK DATE	DRAWING INFORMATION SUR ASSV	INSTLN
J	VE-00000	426	(8 PCS) HOTEL BHM FAN W/PON-VE LOTTING REQUIRED ZONE 03	00/00/00	00/00/00	10/22/82	00/00/00	H	00/00/00 01/07/83	424-501-040- 12/00/82	01/07/83
J	VE-02007	426	COMPLETE INSTALLATION VE-02007 C OK BTD ZONE 02	NREC	NREC	NREC	NREC	H	00/00/00 01/10/83	424-501-030- 01/10/83	01/10/83
J	VE-02008	426	COMPLETE INSTALLATION VE-02008 C OK BTD ZONE 02	NREC	NREC	NREC	NREC	H	00/00/00 01/10/83	424-501-030- 01/10/83	01/10/83
J	VE-01007	426	(14 PCS) VENT DUCT: ADR. MACH INSTALL ZONE 01	00/00/00	00/00/00	10/06/82	00/00/00	H	00/00/00 01/10/83	424-501-140- 11/17/82	01/10/83
J	VE-01001	426	(13 PCS) VENT DUCT MACH CASINO DO NOT PAINT SPIRAL INSTALL ZONE 01	00/00/00	00/00/00	10/27/82	00/00/00	H	00/00/00 01/17/83	424-501-140- 12/16/82	01/17/83
J	VE-01000	426	(14 PCS) VENT DUCT UPPER DECK DO NOT PAINT SPIRAL INSTALL ZONE 01	00/00/00	00/00/00	10/13/82	00/00/00	H	00/00/00 01/17/83	424-501-140- 11/24/82	01/17/83
J	VE-01008	426	(24 PCS) VENT UPPER DR STBD (NO PAINT REQ) ZONE 01	00/00/00	00/00/00	10/21/82	00/00/00	H	00/00/00 01/25/83	424-501-020- 12/06/82	01/25/83
J	VE-01008	426	(10 PCS) VENT UPPER DR PORT ZONE 01	00/00/00	00/00/00	11/04/82	00/00/00	H	00/00/00 01/25/83	424-501-020- 12/20/82	01/25/83
J	VE-01010	426	VENT (MANUAL) FUSEABLE LINK FIR ALL AREA OF HOUSE	00/00/00	00/00/00	00/00/00	00/00/00	H	00/00/00 01/25/83	424-501-000- 01/25/83	01/25/83
J	VE-03003	426	COMPLETE INSTALLATION VE-03003 C OK BTD ZONE 03	NREC	NREC	NREC	NREC	H	00/00/00 01/25/83	424-501-030- 01/25/83	01/25/83
J	VE-03004	426	COMPLETE INSTALLATION VE-03004 C OK BTD ZONE 03	NREC	NREC	NREC	NREC	H	00/00/00 01/25/83	424-501-030- 01/25/83	01/25/83
J	VE-01007	426	(20 PCS) VENT FIELDS NON UPPER ZONE 01 (NO PAINT REQ)	00/00/00	00/00/00	11/18/82	00/00/00	H	00/00/00 02/09/83	424-501-000- 01/10/83	02/09/83

File Description ? MARK OUT STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W08

STRGHT- ~~14307~~

MARK OUT SHEETMETAL FOR 12X8X35 STRAIGHT SECTION WITH AWL AT SHEETMETAL SHOP

PER STRAIGHT SECTION

OFG: 4 28-MAR-83

NASSCO SHEETMETAL SHAPE #2

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1917

* 20 GAUGE GALV. SHEETMETAL

* 12'X8'X35'L STRAIGHT SECTION

* MARK OUT BOTTOM & TOP WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING

STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (4) 1.00 1400.

2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT

USING AWL AND ASIDE PF 10 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (10) 1.00 540.

3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 3

A1 R0 G1 A1 B0 F6 A0 3.00 270.

4 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 3 (4 5 6 7)

A1 B0 G1 (A1 B0 F1 R3) A1 B0 P1 A0 (3) 1.00 190.

5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 10

A1 B0 G1 A1 B0 F6 A0 10.00 900.

6 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 10 (4 5 6 7)

A1 B0 G1 (A1 B0 F1 R6) A1 B0 F1 A0 (10) 1.00 840.

7 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8

A1 B0 G1 A1 B0 F6 A0 8.00 720.

8 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AND ASIDE PF 8 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (8) 1.00 600+

9 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 22 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R6) A1 B0 F1 A0 (22) 1.00 1800.

10 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND HOLD PF 36 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R3) A0 B0 P0 A0 (36) 1.00 1820.

11 MOUE BLACKPEN FROM FITTER TO SHEETMETAL AT WORKTABLE

A1 B0 G1 A1 B0 F1 A0 1.00 40.

2 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R3) A1 B0 F1 A0 (52) 1.00 2640.

13 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS

	A1	B0	G1	A6	B0	F3	A0	1.00	110.
MOVE CART FROM WORKTABLE TO SMALLSHEAR									
	A1	B0	G1	A67	B0	F1	A0	1.00	700.

TOTAL TMU 12570.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR 12'X8' STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W11 STRGHT.M31
SHEAR SHEETMETAL FOR 12'X8' STRAIGHT SECTION WITH SMALL SHEAR AT
SHEETMETAL SHOP
PER STRAIGHT SECTION OFG: 4 07-JUL-83
NASSCO SHEETMETAL SHAPE # 2
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1917
* 20 GAUGE GALV. SHEETMETAL
* 12'X8'X35'L STRAIGHT SECTION
* SHEAR TOP & BOTTOM PIECES OF STRAIGHT
FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS	A1 B0 G1 M1 X6 I0 A0	1.00	90.
3	POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH 3 STEPS F 2	A1 B0 G1 A6 B0 F6 A0	2.00	280.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2	A1 B0 G1 M1 X6 I0 A0	2.00	180.
5	REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
6	MOVE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE	A1 B0 G1 A67 B3 P1 A0	1.00	730.
			TOTAL TMU	1780.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Please input file <STRGHT.M32> ?

le Description ? CUT CORNERS FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

```
(39, 3)
FIT .W08 S T R G W08
CUT CORNERS FOR STRAIGHT SECTION WITH SNIPS AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 25-APR-83
  NASSCO SHEETMETAL SHAPE 2
  * HULL 418
  * DRAWING 501-292
  * V2-92008
  * V6-1017
  * 20 GAUGE GALV. SHEETMETAL
  * 12'X8'X35'L STRAIGHT SECTION
  * FLATTEN CORNERS AFTER CUTTING
  FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
  WITH 3 STEPS
      A1 B0 G1 A6 B0 P3 A0 1.00 110.
2 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
  SNIPS AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 F3 C3) A1 B0 P1 A0 (12) 1.00 880.
3 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3
  STRIKES USING HAMMER AND ASIDE PF 12 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (12) 1.00 880.
4 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
  WITH 4 STEPS
      A1 B0 G1 A6 B0 P3 A0 1.00 110.
5 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO PITTSBURGH
      A1 B0 G1 A54 B0 F1 A0 1.00 570.

TOTAL TMU 2550.
```

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

4330

File Description ? FORM PITTSBURGH EDGE ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W08

S T R G ~~4432~~

FORM SHEETMETAL FOR FITTSBURGH EDGE ON STRAIGHT SECTION WITH
PITTSBURGH MACHINE AT SHEETMETAL SHOP
PER STRAIGHT SECTION

OFG: 4 25-APR-83

NASSCO SHEETMETAL SHAPE # 2

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1917

* 20 GAUGE GALV. SHEETMETAL

* 12'X8'X35'L STRAIGHT SECTION

* FORM 90 DEGREE EDGE

* FORM EDGE ON BACK SIDE OF PITTS. MACHINE

FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 F3 A0 2.00 220.

2 PUSH PITTSBURGH-BUTTON PROCESS F 2

A1 B0 G1 M1 X32 I0 A0 2.00 700.

3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH AT
PITTSBURGH WITH 4 STEPS F 2

A6 B0 G1 M1 X0 I3 A0 2.00 220.

4 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH AT
PITTSBURGH WITH 6 STEPS F 2

A10 B0 G1 M1 X0 I3 A0 2.00 300.

5 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS

A1 B0 G1 A6 B0 F3 A0 1.00 110.

6 MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO
CORNICEBRAKE

A1 B0 G1 A24 B0 F1 A0 1.00 270,

TOTAL TMU 1820,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

6150

Please input file <STRGHT.M34> ?

le Description ? BEND 90 DEGREE BEND IN STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 3)

FIT, .W08

S T R G ~~M34~~

BEND SHEETMETAL TO 90 DEGREE BEND IN STRAIGHT SECTION WITH
CORNICE BRAKE AT SHEETMETAL SHOP

PER STRAIGHT

OFG: 4 25-APR-83

NASSCO SHEETMETAL SHAPE 2

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1917

* 20 GAUGE GALV, SHEETMETAL

* 12'X8'X35'L STRAIGHT SECTION

* MARK OUT BOTTOM AND TOP

FITTER BEGINS AT CORNICEBRAKE

1 PLACE SHEETMETAL FROM CART AT CORNICEBRAKE TO
CORNICEBRAKE WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 OPERATE CORNICEBRAKE-LEVER PROCESS F 2

A1 B0 G1 M6 X42 I0 A0 2.00 1000.

3 REPLACE SHEETMETAL FROM CORNICEBRAKE TO CART AT
CORNICEBRAKE WITH 4 STEPS

A1 B0 G1 A6 B0 F3 A0 1.00 110.

4 MOVE CART WITH SHEETMETAL FROM CORNICEBRAKE TO
WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 1820.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

7970

File Description ? ASSEMBLE STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

```
(39, 3)
FIT .W11 STRGHT.M35
ASSEMBLE SHEETMETAL FOR 12X8 STRAIGHT SECTION WITH HAMMER AT
SHEETMETAL SHOP
PER STRAIGHT OFG: 4 07-JUL-83
  NASSCO SHEETMETAL SHAPE 2
  * HULL 418
  * DRAWING: 501-292
  * V2-92008
  * V6-1917
  * 20 GAUGE GALV, SHEETMETAL
  * 12'X8'X35' LG STRAIGHT SECTION
  * ASSEMBLE TOP TO BOTTOM OF STRAIGHT
  *
  FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0      2.00      220.
2 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL
  [BOTTOM] AT WORKTABLE
      A1 B0 G1 A1 B0 F6 A0      1.00      90.
3 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 8
      A1 B0 G1 A1 B0 P6 A0      8.00      720.
4 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (8) 1.00      600.
5 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P0 P0) A1 B0 F1 A0 (6) 1.00      460.
6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 19 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P0 F32) A1 B0 P1 A0 (19) 1.00      6310.
7 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
      A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0      1.00      100.

TOTAL TMU      8500.
```

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

16,470

2

SHEET METAL SHAPE.17" X 14" X 33" LG. STRAIGHT SECTION

FAB	20490	12 MIN.
MARK OUT	14610	9 MIN.
TOTAL TMU.	35100	21 MIN.

86242

NASSCH - ANALYSIS OF DIRECTION UNITS
PARAMETER ENDING 03-25-83

PREPARED 09/13/82 1101 PAGE 1

CON	LOCATION	ROLL	DESCRIPTION	ENG	STRUCTURE	ACTUAL	LOTTING	ACTUAL	CHARGE	START DATE	DRAWING	INFORMATION
				NO.			NO.		FLAG		SUB	INS
J	V2-01901	424	INSTALL PKG V2-02001 COMPLETE LARGE DUCT & PAN IN PUC'SLE ZONE 02	NREC	NREC	NREC	NREC	NREC	Z	10/29/82 11/22/82	424-501-052- 11/22/82	11/22/82
J	V2-01902	424	COMPLETE INSTALL V2-01002 UPPER OK MACHINE CASING ZONE 01	NREC	NREC	NREC	NREC	NREC	Z	11/03/82 12/09/82	424-501-188- 12/09/82	12/09/82
J	V2-02001	424	COMPLETE INSTALL V2-02001 INSTALL IN STACK ZONE 01	NREC	NREC	NREC	NREC	NREC	Z	11/08/82 12/09/82	424-501-140- 12/09/82	12/09/82
J	V2-01801	424	COMPLETE INSTALL V2-01801 UPPER OK MACH CASING ZONE 01	NREC	NREC	NREC	NREC	NREC	Z	11/09/82 12/10/82	424-501-146- 12/10/82	12/10/82
J	V2-02003	424	COMPLETE INSTALLATION V2-02003 CREWS MESS A OK ZONE 02	NREC	NREC	NREC	NREC	NREC	Z	11/16/82 12/17/82	424-501-090- 12/17/82	12/17/82
J	V2-02004	424	COMPLETE INSTALLATION V2-02004 GALLERY A OK ZONE 02	NREC	NREC	NREC	NREC	NREC	Z	11/16/82 12/17/82	424-501-090- 12/17/82	12/17/82
J	V2-01506	424	COMPLETE INSTALL V2-01506 A OK MACH CASING ZONE 01	NREC	NREC	NREC	NREC	NREC	Z	11/17/82 12/22/82	424-501-140- 12/22/82	12/22/82
J	V2-02005	424	COMPLETE INSTALLATION V2-02005 PASSAGE OFFICERS MESS & LOUNGE ZONE 02	NREC	NREC	NREC	NREC	NREC	H	00/05/83 01/03/83	424-501-090- 01/03/83	01/03/83
J	V2-02506	424	COMPLETE INSTALLATION V2-02506 PRU HOUSE A OK ZONE 02	NREC	NREC	NREC	NREC	NREC	H	00/03/83 01/03/83	424-501-090- 01/03/83	01/03/83
J	V2-03307	424	COMPLETE INSTALLATION V2-03307 B OK P/S ZONE 03	NREC	NREC	NREC	NREC	NREC	H	00/08/83 01/03/83	424-501-048- 01/03/83	01/03/83
J	V2-01506	424	COMPLETE INSTALL V2-01506 MACHINE CASING B OK ZONE 01	NREC	NREC	NREC	NREC	NREC	H	00/06/83 01/03/83	424-501-140- 01/03/83	01/03/83
J	V2-01506	424	124 MESS SPOULES P/BAHNS UPB MIXING BOXES, 3000 MPMAN BRUG ZONE 01 ** 500 H-200 **	NREC	NREC	NREC	NREC	NREC	H	00/06/83 01/07/83	424-501-020- 12/01/82	01/07/83

File Description ? MARK OUT SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11

S T R G

MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL
SHOP
PER STRAIGHT SECTION OFG: 4 16-MAY-83

NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE GALV, SHEETMETAL
* 17'X14'X33'L STRAIGHT SECTION
* MARK OUT STRAIGHT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

- 1 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING.
STEEL-TAPE AT WORKTABLE AND ASIDE
A1 B0 G1 A1 B0 P1 M32 A1 B0 P1 A0 1.00 330.
- 2 MARK DIMENSIONS FROM STEEL-TAPE TO SHEETMETAL AT
WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF
4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (4) 1.00 240.
- 3 MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF
WORKTABLE WITH 9 STEPS
A1 B0 G1 A16 B0 P1 A0 1.00 190.
- 4 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)
A1 B0 G1 (A1 B0 I1 M32) A1 B0 P1 A0 (3) 1.00 1060.
- 5 MARK DIMENSIONS FROM STEEL-TAPE TO SHEETMETAL AT
WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF
6 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (6) 1.00 340.
- 6 POSITION STRAIGHTEDGE-FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 1 STEP F 5
A1 B0 G1 A3 B0 P6 A0 5.00 950.
- 7 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AT WORKTABLE AND ASIDE WITH 1 STEP
F 5
A1 B0 G1 A1 B0 P1 R16 A1 B0 F1 A0 5.00 1100.
- 8 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE WITH 3 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.
- 9 POSITION CORNER TEMPLATE FROM SHEETMETAL TO SHEETMETAL
AT WORKTABLE F 7
A1 B0 G1 A1 B0 P6 A0 7.00 630.
- 10 MARK SHEETMETAL FROM CORNER TEMPLATE TO SHEETMETAL AT
WORKTABLE 2 DIGITS USING AWL AT WORKTABLE WITH 1 STEP
AND ASIDE
A1 B0 G1 A1 B0 P1 A3 R6 A1 B0 P1 A0 1.00 150.
- 11 MARK SHEETMETAL FROM CORNER TEMPLATE TO SHEETMETAL AT
WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF
7 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R6) A1 B0 P11 A0 (7) 1.00 600.
- POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 4
A1 B0 G1 A1 B0 P6 A1 4.00 360.
- 13 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING

File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

STRGHT

SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH SMALL 8FT. SHEAR' AT
SHEETMETAL SHOP

OFG: 4 16-MAY-83

PER DSTRAIGHT SECTION

NASSCO SHEETMETAL SHAPE 2

* 18 GAUGE GALV. SHEETMETAL

* 17'X14'X33' L STRAIGHT SECTION

* SHEAR TOP & BOTTOM PIECES FOR --

* -- STRAIGHT SECTION

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2 . 0 0 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2

A1 B0 G1 M1 X6 I0 A0 2.00 180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 2

A1 B0 G1 A1 B0 P6 A0 2.00 180.

4 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR F 2

A1 B0 G1 A1 B0 P3 A0 2.00 120.

5 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE

A1 B0 G1 A67 B3 P1 A0 1 . 0 0 730.

TOTAL TMU 1490.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

```
( 39, 1)
FIT .W11 STRGHT ██████████
CUT SHEETMETAL FOR STRAIGHT SECTION WITH SNIPS AT SHEETMETAL SHOP
PER STRAIGHT SECTION DFG: 4 16-MAY-83
  NASSCO SHEETMETAL SHAPE 2
  * 13 GAUGE GALV. SHEETMETAL
  * 17'X14'X33'L STRAIGHT SECTION
  FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS F 2
                                     A1 B0 G1 A6 B0 P3 A0      2.00      220.
2 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
  SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
                                     A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (16) 1.00      1160.
3 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3
  STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4
  5 6 7 )
                                     A1 B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (16) 1.00      1160.
4 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
  F 2
                                     A1 B0 G1 A1 B0 P3 A0      2.00      120.
5 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO LAPOUT
                                     A1 B0 G1 A54 B0 P1 A0      1. 00      570.

                                     TOTAL TMU      3230.
```

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

4720

File Description ? FORM LAP ENDS FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

STRGHT

FORM LAP ENDS FOR STRAIGHT SECTION WITH LAPOUT (ROTARY MACHINE)

AT SHEETMETAL SHOP

PER STRAIGHT SECTION

DfG: 4 16-MAY-83

NASSCO SHEETMETAL SHAPE 2

* 18 GAUGE GALV. SHEETMETAL

* 17'X14'X33'L STRAIGHT SECTION

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

2 PUSH LAPOUT-SWITCH PROCESS F 2

A1	B0	G1	M1	X16	IO	A0	2.00	380.
----	----	----	----	-----	----	----	------	------

3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 2 STEPS
F 2

A3	B0	G1	M1	X0	I3	A0	2.00	160.
----	----	----	----	----	----	----	------	------

4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

5 MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO PITTSBURGH

A1	B0	G1	A6	B0	P1	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

TOTAL TMU 1070.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

5790

File Description ? FORM PITTSBURGH ON STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

(39, 1)
FIT .W11 STRGHT.M64
FORM PITTSBURGH ON STRAIGHT SECTION WITH PITTSBURGH MACHINE AT
SHEETMETAL SHOP
PER STRAIGHT SECTION OFG: 4 07-JUL-83
NASSCO SHEETMETAL SHAPE 2
* 13 GAUGE GALV. SHEETMETAL
* 17'X14'X33' L STRAIGHT SECTION
FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	PUSH PITTSBURGH-BUTTON PROCESS F 4	A1 B0 G1 M1 X32 I0 A0	4.00	1400.
3	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 2 STEPS F 4	A3 B0 G1 M1 X0 I3 A0	4.00	320.
4	REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT -PITTSBURGH WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
5	HOVE CART WITH SHEETMETAL FROM PITTSBURGH TO CORNICEBRAKE	A1 B0 G1 A24 B0 P1 A0	1.00	270.
			TOTAL TMU	2430.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

8220

File Description ? BEND SHEETMETAL FOR STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11

BEND SHEETMETAL FOR STRGHT ~~SECTION~~ WITH CORNICE BRAKE AT

SHEETMETAL SHOP
PER STRAIGHT SECTION

OFG: 4 16-MAY-83

NASSCO SHEETMETAL SHAPE 2

* 13 GAUGE GALV. SHEETMETAL

* 17'X14*X33'L STRAIGHT SECTION

* BEND UP SIDES ON STRAIGHT SECTION--

* --90 DEGREES

FITTER BEGINS AT CORNICEBRAKE

1 POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO
CORNICEBRAKE WITH 4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 OPERATE CORNICEBRAKE-LEVER PROCESS

A1 B0 G1 M6 X42 I0 A0 1.00 500.

3 POSITION SHEETMETAL FROM CORNICEBRAKE TO CORNICEBRAKE

A1 B0 G1 A1 B0 F6 A0 1.00 90.

4 OPERATE CORNICEBRAKE-LEVER PROCESS

A1 B0 G1 M6 X42 I0 A0 1.00 500.

5 REPLACE SHEETMETAL FROM CORNICEBRAKE TO CART A1-
CORNICEBRAKE WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART WITH SHEETMETAL2 FROM CORNICEBRAKE TO
WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 1940.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

10,160

File Description ? ASSEMBLE STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

STRGHT ~~XXXXXXXXXX~~

ASSEMBLE STRAIGHT SECTION WITH HAMMER AT SHEETMETAL SHOP

PER STRAIGHT SECTION

OFG: 4 16-MAY-83

NASSCO SHEETMETAL SHAPE 2

* 18 GAUGE GALV. SHEETMETAL

* 17'X14'X33'L STRAIGHT SECTION

FITTER BEGINS AT WORKTABLE

- 1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

- 2 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE WITH 3 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (4) 1.00 320.

- 3 POSITION SHEETMETAL [TOP] TO SHEETMETAL [BOTTOM] AT
WORKTABLE

A1 B0 G1 A1 B0 P6 A0 1.00 90.

- 4 PLACE SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 12

A1 B0 G1 A1 B0 P3 A0 12.00 720.

- 5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (12) 1.00 380.

- 5 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F10) A1 B0 P1 A0 (12) 1.00 1360.

- 7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
USING HAMMER AT WORKTABLE AND ASIDE PF 20 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F32) A1 B0 P1 A0 (20) 1.00 6640.

- 3 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 10330.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

20,490

SHEET METAL SHAPE

2

18" x 11" x 34" LG. STRAIGHT SECTION

FAB 10,440 6 MIN.

MARK OUT 13,400 8 MIN.

WELD 31,590 19 MIN.

TOTAL TMU. 55,430 33 MIN.

02242

HANSCO - ANALYSIS OF ERECTION UNITS

PREPARED 02/15/82 11:01 PAGE 3

PARAMETER ENDING 01-25-83

CON	UNIT	ROLL	DESCRIPTION	END STRUCTURE	LOFTING	CHARGE	START DATE	DRAWING INFORMATION
				SCHED	ACTUAL	FLAG	DATE	SUB ASSY INSTLN
J	V2-03005	426	COMPLETE INSTALLATION V2-03005 ON DECK ZONE 03	NREC	NREC	N	00/00/00 02/02/83	424-501-040- 02/02/83 02/02/83
J	V2-03006	426	COMPLETE INSTALLATION V2-03006 ON DECK ZONE 01	NREC	NREC	N	00/00/00 02/02/83	424-501-040- 02/02/83 02/02/83
J	V2-01000	426	111 PCS VENT PANS, PANS, 100 HD FOR DECK MACHY CASING ZONE 01 ** RELIEF REV. 44	00/00/00	00/00/00	11/17/82	00/00/00 02/21/83	424-501-140- 01/10/83 02/21/83
J	V2-01003	426	101 TERMINALS LOWER LEVEL ZONE 01	00/00/00	00/00/00	00/00/00	00/00/00 03/02/83	424-501-110- 03/02/83 03/02/83
J	V2-02005	426	PURCHASED ITEMS 101 TERMINALS ZONE 02	NREC	NREC	N	00/00/00 03/02/83	424-501-120- 03/02/83 03/02/83
J	V2-03007	426	PURCHASED ITEMS 101 TERMINALS 100-02000 V2-003 PERMANENT 424 37-001 LAY ZONE 03	NREC	NREC	N	00/00/00 03/02/83	424-501-130- 03/02/83 03/02/83
J	V2-01011	426	PURCHASED ITEMS 101 TERMS ZONE 01 MACHY CASING	NREC	NREC	N	00/00/00 03/10/83	424-501-140- 03/10/83 03/10/83
J	V2-01009	426	REGISTERS AND GRILLS UPPER BRG ZONE 01	NREC	NREC	N	00/00/00 03/24/83	424-501-130- 03/24/83 03/24/83
J	V2-01000	426	REGISTERS AND GRILLS UPPER BRG ** SEE HUPHAN FOR REGISTERS * ZONE 02	NREC	NREC	N	00/00/00 03/24/83	424-501-030- 03/24/83 03/24/83
J	V2-01014	426	FLAT COAT, HAMMERS, SCREENS ZONE 01 UPPER BRG	NREC	NREC	N	00/00/00 03/24/83	424-501-001- 02/23/83 03/24/83

UNITED BEHIND SCHED

0 ***

0 ***

File Description ? HARK OUT SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

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(39, 1)
FIT .W11 STRGHT ██████████
MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL
SHOP
PER STRAIGHT SECTION OFG: 4 24-M4Y-83
NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 18'X11'X34'L STRAIGHT SECTION
* HARK OUT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
  STEEL-TAPE AT WORKTABLE AND ASIDE WITH 3 STEPS PF 4 (
  4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (4) 1.00 1400.
2 MARK DIMENSIONS AN SHEETMETAL AT WORKTABLE 1 DIGIT
  USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 7 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (7) 1.00 390.
3 MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF
  WORKTABLE WITH 9 STEPS
    A1 B0 G1 A16 B0 P1 A0 1.00 190.
4 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
  STEEL-TAPE AT WORKTABLE AND ASIDE WITH 3 STEPS PF 3 (
  4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (3) 1.00 1060.
5 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING AWL AT WORKTABLE AND ASIDE WITH 3 STEPS PF 5 ( 4
  5 6 7 )
    A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (5) 1.00 290.
6 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 2 STEPS F 3
    A1 B0 G1 A3 B0 P6 A0 3.00 330.
7 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
  5 DIGITS USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE
  PF 3 (4 5 6 7)
    A1 B0 G1 (A1 R0 P1 A6) R16 A1 B0 P1 A0 (3) 1.00 440.
8 MOUE STRAIGHTEDGE FROM WORKTABLE TO OTHER SIDE OF
  WORKTABLE WITH 9 STEPS
    A1 B0 G1 A1 B0 P1 A0 1.00 190.
9 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 3
    A1 B0 G1 A1 B0 P6 A0 3.00 270.
10 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
  5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6
  7 )
    A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (3) 1.00 580.
11 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
  AT WORKTABLE WITH 2 STEPS F 4
    A1 B0 G1 A3 B0 P6 A0 4.00 440.
12 MARK LINES FROM CORNER TEMPLATE TO SHEETMETAL AT
  WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF
  4 ( 4 5 6 7 )
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	A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (4)	1.00	360.
13	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS AND ASIDE F 2		
	A1 B0 G1 A3 B0 P6 A0	2.00	220.
14	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE WITH 3 STEPS AND ASIDE PF 2 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 A6) F3 A1 B0 P1 A0 (2)	1.00	210.
15	MOUE CPUNCH FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 POINTS		
	A1 B0 G1 A1 B0 P1 A0	1.00	40.
16	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS AND ASIDE F 2		
	A1 B0 G1 A3 B0 P6 A0	2.00	220.
17	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE WITH 2 STEPS F 2		
	A1 B0 G1 A1 B0 P0 F3 A1 B0 P1 A0	2.00	160.
18	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4		
	A1 B0 G1 A3 B0 P6 A0	4.00	440.
19	MARK LINES FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (4)	1.00	360.
20	FITTER MOVE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS		
	A1 B0 G1 A16 B0 P1 A0	1.00	190.
21	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 9 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (3)	1.00	580.
22	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND. ASIDE PF 26 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (26)	1.00	1340.
23	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52)	1.00	2640.
24	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 F3 A0	2.00	220.
25	MOVE CART FROM WORKTABLE TO 14FT. SHEAR		
	A1 B0 G1 A81 B0 P1 A0	1.00	840.
TOTAL TMU			13400.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

(39, 1)
 FIT .W11 STRGHT-
 SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH 14FT. SHEAR AT
 SHEETMETAL SHOP
 PER STRAIGHT SECTION OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 2									
* 11 GAUGE GALV. SHEETMETAL									
* 18'X11'X34' STRAIGHT SECTION									
* SHEAR TOP 3 BOTTOM PIECES FOR --									
t -- STRAIGHT SECTION									
FITTER BEGINS AT 14FT. SHEAR									
1	POSITION SHEETMETAL FROM CART AT 14FT. SHEAR TO								
	14FT. SHEAR WITH 4 STEPS F 2	A1	B0	G1	A6	B0	P6	A0	280.
2	PUSH 14FT. SHEAR-FOOTPEDAL PROCESS	A1	B0	G1	M1	X3	I0	A0	1000 60.
3	POSITION SHEETMETAL FROM 14FT. SHEAR TO 14FT. SHEAR WITH								
	2 STEPS F 6	A1	B0	G1	A3	B0	P6	A0	6.00 660.
4	PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 6	A1	B0	G1	M1	X3	I0	A0	6.00 360.
5	REPLACE SHEETMETAL FROM 14FT. SHEAR TO CART AT								
	14FT. SHEAR WITH 12 STEPS F 2	A1	B0	G1	A24	B0	P3	A0	2.00 580.
6	MOUE CART FROM 14FT. SHEAR TO WORKTABLE	A1	B0	G1	A81	B3	P1	A0	1.00 870.
TOTAL TMU									2810.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

STRGHT ~~XXXXXXXXXX~~

CUT SHEETMETAL FOR STRAIGHT SECTION WITH SABER-SAW AT SHEETMETAL
SHOP

PER STRAIGHT SECTION

OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 2

* 11 GAUGE GALV. SHEETMETAL

* 18'X11'X34' STRAIGHT SECTION

* CUT CORNERS FOR STRAIGHT SECTION

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 F3 A0 2.00 220 .

2 MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE

A96 B0 G1 A96 B3 P1 A0 1.00 1970 .

3 OPERATE SABER-SAW AT WORKTABLE PROCESS

A1 B0 G1 M6 X67 I0 A0 1.00 750 .

4 PLACE SHEETMETAL FROM WORKTABLE TO WORKTABLE WITH 2
STEPS

A1 B0 G1 A3 B0 P3 A0 1.00 80 .

5 OPERATE SABER-SAW AT WORKTABLE PROCESS

A1 B0 G1 M6 X67 I0 A0 1.00 750 .

6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 F3 A0 2.00 220 .

7 MOUE CART FROM WORKTABLE TO 14FT HYDROPRESSBRAKE

A1 B0 G1 A96 B0 P1 A0 1.06 990 .

TOTAL TMU 4980 .

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

7790

File Description ? BEND SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

STRGHT ~~XXXXXXXXXX~~

BEND SHEETMETAL FOR STRAIGHT SECTION WITH 14FT. HYDRO-PRESS-BRAKE
AT SHEETMETAL SHOP

PER STRAIGHT SECTION

OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 2

* 11 GAUGE GALV. SHEETMETAL

* 18'X11'X34' STRAIGHT SECTION

* BEND SIDES IF STRAIGHT SECTION

* COMPLETE IN WELD BOOTH AREA

* SEE MWELDSTRGHT.M94

FITTER BEGINS AT 14FT. HYDROFRESSBRAKE

1 POSITION SHEETMETAL FROM CART AT 14FT HYDROPRESSBRAKE
TO 14FT HYBROPRESSBRAKE WITH 2 STEPS F 2

A1 B0 G1 A3 B0 P6 A0 2.00 220.

2 PUSH 14FT HYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2

A1 B0 G1 M1 X24 I0 A0 2.00 540.

3 POSITION SHEETMETAL FROM 14FT HYDROFRESSBRAKE TO
14FT HYBROFRESSBRAKE WITH 2 STEPS F 2

A1 B0 G1 A3 B0 F6 A0 2.00 220.

4 PUSH 14FT HYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2

A1 B0 G1 M1 X24 I0 A0 2.00 540.

5 REPLACE SHEETMETAL FROM 14FT HYDROFRESSBRAKE TO CART AT
14FT HYDROPRESSBRAKE WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM 14FT HYDROFRESSBRAKE TO WORKTABLE

A1 B0 G1 A96 B3 P1 A0 1.00 1020.

TOTAL TMU 2650.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help> ?

10,440

File Description ? WELD STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 101)

WELD .WO1 STRGHT.M94

WELD STRAIGHT SECTION WITH ARC (STICK) WELDER AT SHEETMETAL SHOP
WELDING BOOTH

PER STRAIGHT SECTION

OFG: 4 19-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 2

- * 11 GAUGE GALV. SHEETMETAL
 - * 18'X11'X34'L STRAIGHT SECTION
 - * WELDING DONE IN WELD AREA BOOTH
 - * WELDOR PERFORMS THE WORK
 - * FITTER TRANSPORTS SHEETMETAL
- FITTER BEGINS AT WORKTABLE

- | | | | |
|----|---|-------|--------|
| 1 | FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE To CART
AT WORKTABLE WITH 4 STEPS F 2 | | |
| | A1 B0 G1 A6 B0 P3 A0 | 2.00 | 220. |
| 2 | FITTER MOVE CART FROM WORKTABLE To WELDTABLE | | |
| | A1 B0 G1 A131 B3 P1 A0 | 1.00 | 1370. |
| 3 | PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
WELDTABLE WITH 4 STEPS F 2 | | |
| | A1 B0 G1 A6 B0 P3 A0 | 2.00 | 220. |
| 4 | WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS | | |
| | A3 B0 G1 M1 X0 I0 A32 | 1.00 | 370. |
| 5 | WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES | | |
| | A1 B0 G1 M3 X0 I0 A1 | 1.00 | 60. |
| 6 | WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
To SHEETMETAL ASSEMBLY AT WELDTABLE F 2 | | |
| | A3 B3 G1 A1 B0 P6 A0 | 2.00 | 280. |
| 7 | WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2 | | |
| | A1 B0 G1 M1 X10 I0 A0 | 2.00 | 260. |
| 8 | WELDROD FASTEN WELDROD TO STINGER1 AT WELDTABLE 1
WRIST-TURN USING HAND F 15 | | |
| | A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 | 15.00 | 1050. |
| 9 | FULL WELDHOO D FROM UP AT WELDOR To DOWN AT WELDOR F 15 | | |
| | A1 B0 G1 M1 X0 I0 A1 | 15.00 | 600. |
| 10 | WELDOR POSITION STINGER-BUTTON1 FROM WELDTABLE TO
SHEETMETAL ASSEMBLY AT WELDTABLE F 15 | | |
| | A1 B0 G1 A1 B0 P6 A0 | 15.00 | 1350. |
| 11 | OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F
1 1 | | |
| | A1 B0 G1 M6 X173 I0 A0 | 11.00 | 19910. |
| 12 | PUSH WELDHOO D FROM DOWN AT WELDOR To UP AT WELDOR F 15 | | |
| | A1 B0 G1 M1 X0 I0 A1 | 15.00 | |
| 13 | WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND
ASIDE PF 6 (4 5 6 7) | | |
| | A1 B0 G1 (A1 B0 P0 L16) A1 B0 F1 A0 (6) | 1.00 | 1060. |
| 14 | WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
22 (4 5 6 7) | | |
| | A1 B0 G1 (A1 B0 P1 C10) A1 B0 P1 A0 (22) | 1.00 | 2680. |

SHEET METAL SHAPE

2

5x6x48" LG. STRAIGHT SECTION

FAB	19110	11 MIN.
MARK OUT	20900	12 MIN.
TOTAL	40010	24 MIN.

7 SHTS

File Description ? MARK OUT STRAIGHT SECTION

Output to line-printer <Y or N> ? N

39, 31-
 FIT 404 STRGHT.M02
 MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL
 SHOP
 PER STRAIGHT OFG: 4 04-MAR-83

A REPRESENTATIVE STRAIGHT SECTION
 * 20 GAUGE GALV. SHEETMETAL
 * DIMENSIONS:5'X6'X48'L
 * NO TEMPLATE USED-LAYOUT ONLY (2 PIECES)
 * STRAIGHT VENT = STRGHT
 FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND HOLD		
	A1 B0 G1 A1 B0 F1 M32 A0 B0 P0 A0	1.00	360.
2	MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (3)	1.00	190.
3	MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS		
	A1 B0 G1 A1 B0 F1 A0	1.00	190.
4	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND HOLD		
	A1 B0 G1 A1 B0 F1 M32 A0 B0 P0 A0	1.00	360.
5	MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 3 (4 5 6 7)		
	A1 B0 G1 . (A1 B0 P1 R3)A1 B0 P1 A0 (3)	1.00	190.
6	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND HOLD		
	A1 B0 G1 A1 B0 F1 M32 A0 B0 FO A0	1.00	360.
7	MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 3 STEPS PF 8 (4 5 6 7)		
	A1 B0 G1 A1 B0 F1 R3)A1 B0 F1 A0 (B)	1.00	440.
8	MOVE STEEL-TAPE FROM WORKTABLE TO WORKTABLE 3 STEPS AND HOLD		
	A1 B0 G1 A6 B0 F1 A0	1.00	90.
9	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE		
	A1 B0 G1 A1 B0 F1 M32 A1 B0 P1 A0	1.00	380.
10	MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 8 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 0 P1 A0 (8)	1.00	440.
11	POSITION STRAIGHT-EDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND HOLD F 5		
	A1 B0 G1 A1 B0 F6 A0	5.00	450.
12	MARK LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)		
	A1 B0 G1 (A1 B0 F1 R16)A1 B0 P1 A0 (5)	1.00	940.
13	MOVE STRAIGHT-EDGE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE AND HOLD		

----- A1 B0 G1 A1 B0 P1 A0 --- 1.00

34 MOVE CART FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 AS7 B0 P1 A0 1.00 700.

TOTAL TMU

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:pe D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR OUTLINES OF STRAIGHT PIE&E

Output to line-printer <Y or N> ? N\

%Invalid command.

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W11

STRGHT.MO3

SHEAR SHEETMETAL OUTLINES FOR STRAIGHT (#2) PIECE WITH SHEAR AT
SHEETMETAL SHOP

PER STRAIGHT

DFG: 4 07-JUL-83

NASSCO SHEETMETAL PART #2

* 20 GAUGE GALV. SHEETMETAL

* DIMENSIONS: 5'X6'X48'L

* STRAIGHT VENT = STRGHT

* SHEAR IS SMALL 3 FT, SHEAR

FITTER BEGINS AT SMALLSHEAR

1 POSITION 4X8 SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

A1 B0 G1 M1 X6 IO A0 1.00 90.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2

A1 B0 G1 M1 X6 IO A0 2.00 180.

5 PLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

6 MOUE CART FROM SMALLSHEAR TO WORKTABLE

A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 1640.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT CORNERS ON STRAIGHT PIECE

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W11

STRGHT.MO4

CUT SHEETMETAL FOR STRAIGHT (#2) PIECE CORNERS WITH SNIPS AT
SHEETMETAL SHOP

PER STRAIGHT

DFG: 4 07-JUL-83

NASSCO SHEETMETAL PART # 2

* 20 GAUGE GALV. SHEETMETAL

* DIMENSIONS: 5'X6'X48'L

* STRAIGHT VENT = STRGHT

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
SNIPS AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 C3)A1 B0 P1 A0 (12) 1.00 380.

3 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES

USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (12) 1.00 880 .

4 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220 .

5 MOVE CART FROM WORKTABLE TO LAPOUT MACHINE

A1 B0 G1 A54 B0 P1 Ad 1.00 570 .

TOTAL TMU 2770 .

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

4410

File Description ? FORM LAP OUT FOR STRAIGHT PIECE

Output to line-printer <Y or N> ? N

39, 3)
FIT .wo4 STRGHT.MO5
FORM LAP OUT END FOR STRAIGHT PIECE WITH LAP OUT MACHINE AT
SHEETMETAL SHOP
PER STRAIGHT DFG: 4 04-MAR-83

A REPRESENTATIVE STRAIGHT PIECE
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 5'X6'X48'L
* STRAIGHT VENT = STRGHT
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT MACHINE
WITH 4 STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
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2 PUSH LAPOUT-SWITCH AT LAPOUT PROCESS F 2

A1	B0	G1	M1	X16	IO	A0	2.00	380 .
----	----	----	----	-----	----	----	------	-------

3 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
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4 MOUE CART FROM LAPOUT TO PITTSBURGH

A1	B0	G1	A6	B0	P1	A0	1.00	90.
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TOTAL	TMU	800.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H fop help> ?

5210

File Description ? FORM PITTSBURGH ON STRAIGHT PIECE

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( 39, 3)
FIT      .wo4                      Strght.M06
      FORM SHEETMETAL FOR STRAIGHT PIECE WITH PITTSBURGH MACHINE AT
SHEETMETAL SHOP
PER STRAIGHT                      DFG:  4  04-MAR-83
      A REPRESENTATIVE STRAIGHT PIECE
      * 20 GAUGE GALV, SHEETMETAL
      * DIMENSIONS: 5'X6'X48'L
      * STRAIGHT VENT = STRGHT
      * PITTSBURGH JOINT MACHINE (STEELERS)
      FITTER BEGINS AT PITTSBURGH
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help>?

66.40

Please input file <STRGHT.M07> ?

File Description ? BEND STRAIGHT PIECE

OutPut to line-printer <Y or N> ? N

(39, 3)

FIT .wo4

STRGHT.M07

BEND SHEETMETAL FOR STRAIGHT PIECE WITH CORNICE BRAKE AT
SHEETMETAL SHOP

PER STRAIGHT

DFG: 4 04-MAR-83

A REPRESENTATIVE STRAIGHT PIECE

I 20 GAUGE GALV, SHEETMETAL

* DIMENSIONS: 5'X6'X48'L

* STRAIGHT VENT = STRGHT

* CORNICE BRAKE BENDS WITH LEAF

* CORNICE BRAKE HAND OPERATED

FITTER BEGINS AT CORNICEBRAKE

1 POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO
CORNICEBRAKE WITH 4 STEPS

A1	B0	G1	A6	B0	P6	A0	1.00	140.
----	----	----	----	----	----	----	------	------

2 OPERATE CORNICEBRAKE-LEVER AT CORNICEBRAKE PROCESS F 2

A1	B0	G1	M6	X42	IO	A0	2.00	1000.
----	----	----	----	-----	----	----	------	-------

3 PLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT
CORNICEBRAKE WITH 4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

4 MOVE CART FROM CORNICEBRAKE TO WORKTABLE

A1	B0	G1	A54	B3	P1	A0	1.00	600.
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TOTAL TMU							1850.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

8 4 9 0

File Description ? ASSEMBLE STRAIGHT PIECE

Output to line-printer <Y or N> ? N

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( 39, 3)
FIT .W11 STRGHT.M08
ASSEMBLE STRAIGHT SECTION WITH HAMMER AT SHEETMETAL SHOP
PER STRAIGHT DFG: 4 07-JUL-83
  NASSCO SHEETMETAL SHAPE 2
  * 20 GAUGE GALV. SHEETMETAL
  * DIMENSIONS:5'X6'X48' LG
  * STRAIGHT VENT=STRGHT
  FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL
  [BOTTOM] AT WORKTABLE
      A1 B0 G1 A1 B0 P6 A0 1.00 90.
3 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 3
      A1 B0 G1 A1 B0 P6 A0 8.00 720.
4 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 ( 8 ) 1.00 600.
5 FASTEN SHEETMETAL [TOP] TO SHEETMETAL [BOTTOM] AT
  WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND
  ASIDE PF 3 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (8) 1.00 600.
6 FASTEN SHEETMETAL [TOP] TO SHEETMETAL [BOTTOM] AT
  WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND
  ASIDE PF 25 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 PO F32 )A1 B0 P1 A0 (25) 1.00 8 2 9 0 .
7 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
      A0 B0 GO A0 B0 PO T10 A0 B0 PO A0 1.00 100.

TOTAL TMU 10620.
```

Type D,EM,CT,EW,EX,L,LD,LS,T,W <or H for help> ?

19,110

SHEET METAL SHAPE # 2

19" X 10" X 6'-6" LG STRAIGHT SECTION

<u>FAB</u>	<u>32740</u>	<u>20 MIN.</u>
<u>MARK OUT</u>	<u>16170</u>	<u>10 MIN.</u>
<u>TOTAL TMU.</u>	<u>48,910</u>	<u>29 MIN.</u>

7 SHFS.

Please input file <STRGHT.M40> ?

File Description ? MARK OUT STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(3 9 , 3)

FIT •W09

S T R G H T

MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL
SHOP

PER STRAIGHT SECTION=

OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE =2

* HULL 414

* DRAWING 501-062

* V2-1099

* VS-7620

* 18 GAUGE GALV. SHEETMETAL

* 19'XAO'X6'6'L STRAIGHT SECTION

* MARK OUT TOP & BOTTOM WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 3 STEPS		
	A1 B0 G1 A1 B0 M32 A1 B0 P1 A0	1.00	380.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE		
	A1 B0 G1 A1 B0 P1 R3 A1 B0 P1 A0	1.00	90.
3	MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS		
	A1 B0 G1 A16 B0 P1 A0	1.00	190.
4	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (3)	1.00	1060.
5	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 10 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (10)	1.00	540.
6	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WOKTABLE WITH 3 STEPS F 3		
	A1 B0 G1 A6 B0 P6 A0	3.00	420.
7	MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL WITH 3 STEPS AND ASIDE PF 3 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 A6)R16A1 B0 P1 A0 (3)	1.00	440 .
3	MOUE STRAIGHTEDGE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS		
	A1 B0 G1 A16 B0 P1 A0	1.00	190.
9	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2		
	A1 B0 G1 A1 B0 P6 A0	2.00	130.
10	MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS USING AWL WITH 3 STEPS AND ASIDE PF 2 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 A6)R16A1 B0 P1 A0 (2)	1.00	360.
11	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 6		
	A1 B0 G1 A6 B0 P6 A0	6.00	840.
12	MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2		

	DIGITS USING AWL AND ASIDE PF 6 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R6)A1 B0 P1 A0 (6)	1.00	520.
13	MOVE CORNER TEMPLATE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS		
	A1 B0 G1 A16 B0 P1 A0	1.00	190.
14	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 6		
	A1 B0 G1 A6 B0 P6 A0	6.00	840.
15	MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AND ASIDE PF 6 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R6)A1 B0 P1 A0 (6)	1.00	520.
16	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 6		
	A1 B0 G1 A6 B0 P6 A0	6.00	840.
17	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 6 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (6)	1.00	280.
18	MOVE CPUNCH FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS		
	A1 B0 G1 A16 B0 P1 A0	1.00	190.
19	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE		
	A1 B0 G1 A1 B0 P0 F3 A1 B0 P1 A0	1.00	80.
20	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND HOLD PF 7 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A0 B0 P0 A0 (7)	1.00	1280.
21	MOVE REDPEN FROM FITTER TO OTHER SIDE OF WORKTABLE WITH 9 STEPS		
	A1 B0 G1 A16 B0 P1 A0	1.00	190.
22	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 7 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (7)	1.00	1300.
3	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND HOLD PF 29 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A0 B0 P0 A0 (29)	1.00	1470.
24	MOVE BLACKPEN FROM FITTER TO OTHER SIDE OF WORKTABLE WITH 9 STEPS		
	A1 B0 G1 A16 B0 P1 A0	1.00	1901
25	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 29 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (29)	1.00	1490.
26	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (25)	1.00	1290.
27	PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
28	MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR		
	A1 B0 G1 A67 B0 P1 A0	1.00	700.
	TOTAL TMU		16170.

pe DI,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help) ?

T

Please input file <STRGHT.M41> ?

File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(3 9 , 3)

FIT •W09

S T R G H T

SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH SMALL 8 FT. SHEAR AT
SHEETMETAL SHOP

PER STRAIGHT

OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE =2

* HULL 414

* DRAWING 501-062V2-1099

* V6-7620

* 18 GAUGE GALV. SHEETMETAL

* 19'X10'X6'6"L STRAIGHT SECTION

* 2 MEN REQUIRED TO MOVE&POSITION METAL

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2

A1	B0	G1	A6	B0	P6	A0	2.00	280.
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2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2

A1	B0	G1	M1	X6	IO	A0	2.00	180.
----	----	----	----	----	----	----	------	------

3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR F 4

A1	B0	G1	A1	B0	P6	A0	4.00	360.
----	----	----	----	----	----	----	------	------

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2

A1	B0	G1	M1	X6	IO	A0	2.00	180.
----	----	----	----	----	----	----	------	------

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT

SMALLSHEAR WITH 10 STEPS F 2

A1	B0	G1	A16	B0	P3	A0	2.00	420.
----	----	----	-----	----	----	----	------	------

6 HOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE

A1	B0	G1	A67	B3	P1	A0	1.00	730.
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TOTAL TMU 2150.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT LAP CORNERS ON STRAIGHT SECTION

Output to line-printer <Y or N) ? N

✓:
FIT 3)
.W11

STRGHT.M42

CUT SHEETMETAL FOR STRAIGHT SECTION LAP CORNERS WITH SNIPS AT
SHEETMETAL SHOP

PER STRAIGHT

OFG: 4 07-JUL-83

NASSCO SHEETMETAL SHAPE =2

* HULL 414

* DRAWING 501-062

* V2-1099

* V6-7620

* 18 GAUGE GALV. SHEETMETAL

* 19'X10'X6'6"L STRAIGHT SECTION

* CUT OUT CORNER ON LAP ENDS WITH SNIPS

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE F 6		
	A1 B0 G1 A1 B0 P3 C3 A1 B0 P1 A0	6.00	660.
3	MOVE SNIPS FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P1 A0	1.00	90.
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE F 6		
	A1 B0 G1 A1 B0 P3 C3 A1 B0 P1 A0	6.00	660.
5	FASTEN SHEETMETAL [CORNERS] TO WORKTABLE 3 STRIKES USING HAMMER AND HOLD PF 6 (4 5 6 7)		
	A1 B0 G1 (A1 B0 PO F6)A0 B0 PO A0 (6)	1.00	440.
6	MOVE HAMMER FROM FITTER TO OTHER SIDE OF WORKTABLE WITH 4 STEPS AND ASIDE		
	A1 B0 G1 A6 B0 P1 A0	1.00	90.
7	FASTEN SHEETMETAL [CORNERS] AT WORKTABLE 3 STRIKES USING HAMMER AND HOLD PF 6 (4 5 6 7) 1		
	A1 B0 G1 (A1 (A1 PO F6)A0 B0 PO A0 (6)	1.00	440.
8	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
9	MOVE CART FROM WORKTABLE TO LAPOUT		
	A1 B0 G1 A54 B0 P1 A0	1.00	570.
	TOTAL TMU		3390.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

5540

T

Please input file <STRGHT.M43> ?

File Description ? FORM LAP END OFFSET ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(3 9 ' 3)
FIT •W09 STRGHT ~~SECTION~~
FORM LAP END OFFSET FOR STRAIGHT SECTION WITH LAPOUT MACHINE AT
SHEETMETAL SHOP
PER STRAIGHT OFG: 4 07-APR-83
NASSCO SHEETMETAL SHAPE =2
* HULL 414
* DRAWING 501-062
* V2-1099
*0 V6-7620
* 18 GAUGE GALV. SHEETMETAL
*19'X10'6'L STRAIGHT SECTION
* 2 MEN REQUIRED TO HOLD SHEETMETAL
FITTER BEGINS AT LAPOUT

1	PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 2	A1 B0 G1 A6 E0 P3 A0	2.00	220 .
2	PUSH LAPOUT-SWITCH AT LAPOUT PROCESS F 4	A1 B0 G1 M1 X16 IO A0	4.00	760.
3	REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 4	A1 B0 G1 A6 B0 P3 A0	4.00	440.
4	MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO PITTSBURGH	A1 E0 G1 A6 B0 F1 A0	1.00	90.
TOTAL TMU				1510.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

7050

Please input file <STRGHT.M44> ?

File Description? FORM PITTSBURGH LOCKS ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(3 9 , 3)
FIT •W09 STRGHT. [REDACTED]
FORM PITTSBURGH LOCKS ON STRAIGHT SECTION WITH PITTSBURGH MACHINE
AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 07-APR-83
NASSCO SHEETMETAL SHAPE =2
* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7620
* 18 GAUGE GALV. SHEETMETAL
*19'X10'X6'6' L STRAIGHT SECTION
* 2 MEN REQUIRED TO POSITION & MOVE METAL
FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 4	A1 B0 G1 A6 B0 P3 A0	4.00	440.
2	PUSH PITTSBURGH-BUTTON PROCESS F 4	A1 B0 G1 M1 X32 IO A0	4.00	1400.
3	PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 4 STEPS F 8	A6 B0 G1 M1 X0 I3 A0	8.00	880.
4	REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS F 4	A1 B0 G1 A6 B0 P3 A0	4.00	440.
5	MOVE CART WITH SHEETMETAL2 FROM PITTSBURGH TO CORNICEBRAKE	A1 B0 G1 A24 B0 P1 A0	1.00	270.
			TOTAL TMU	3430.

Type D,EM,CT,EW,EX,L,LD,LS,M,,W <or H for help> ?

10480

T

Please input file <STRGHT.M45> ?

File Description ? BEND UP 90 DEGREE SIDES ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(3 9 , 3)
FIT •W09 STRGHT
BEND UP 90 DEGREE SIDES ON STRAIGHT SECTION WITH CORNICE BRAKE AT
SHEETMETAL SHOP
PER STRAIGHT OFG: 4 07-APR-83
NASSCO SHEETMETAL SHAPE #2
* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7620
* 18 GAUGE GALV. SHEETMETAL
* 19'X10'X6'6"L STRAIGHT SECTION
*(2 MEN REQUIRED TO POSITION & MOVE METAL
FITTER BEGINS AT CORNICEBRAKE

1	POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	OPERATE CORNICEBRAKE-LEVER PROCESS F 2		
	A1 B0 G1 M6 X42 IO A0	2.00	1000.
3	POSITION SHEETMETAL2 FROM CORNICEBRAKE TO CORNICEBRAKE F 2		
	A1 B0 G1 A1 B0 P6 A0	2.00	180.
4	OPERATE CORNICEBRAKE-LEVER PROCESS F 2		
	A1 B0 G1 M6 X42 IO A0	2.00	1000.
5	REPLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT CORNICEBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 P3 A0	2.00	220.
6	MOVE CART WITH SHEETMETAL FROM CORNICEBRAKE TO WORKTABLE		
	A1 B0 G1 A54 B3 P1 A0	1.00	600.
	TOTAL TMU		3280.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

13760

File Description ? ASSEMBLE TOP TO BOTTOM OF STRAIGHT SECTION

output to line-printer <Y or N> ? N

(3 9 , 3)

FIT .W11

STRGHT.M46

ASSEMBLE TOP TO BOTTOM ON STRAIGHT SECTION WITH HAMMER AT
SHEETMETAL SHOP

PER STRAIGHT

OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE #2

* HULL 414

* DRAWING 501-062

* V2-1099

* V6-7620

* 18 GAUGE GALV. SHEETMETAL

* 19'X10'X6'6"L STRAIGHT SECTION

* LAY SCRAPMETAL ACROSS BOTTOM TO HOLD TOP

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FASTEN [FLATTEN] CORNERS ON SHEETMETAL WITH 3 STEPS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4567)	A6 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (12)	1.00	9301.
3	POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE WITH 3 STEPS	A1 B0 G1 A6 B0 P6 A0	1.00	140.
4	POSITION SHEETMETAL [SCRAP] FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2	A1 B0 G1 A6 B0 P6 A0	2.00	280.
5	POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 7	A1 B0 G1 A1 B0 P6 A0	7.00	630.
6	FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AND ASIDE PF 7 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (7)	1.00	530.
7	FASTEN SHEETMETAL TO SHEETMETAL 4 STRIKES USING HAMMER AND ASIDE F 7 (4567)	A1 B0 G1 (A1 B0 P0 F10)A1 B0 P1 A0 (7)	1.00	810.
8	REPLACE SHEETMETAL [SCRAP] FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
9	MOVE SETTINGTOOL TO OTHER END OF WORKTABLE WITH 4 STEPS AND ASIDE PF 2 (4567)	A1 B0 G1 (A6 B0 P1 A0)	1.00	160.
10	FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AND ASIDE PF 7 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (7)	1.00	530.
11	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AND ASIDE PF 7 (4567)	A1 B0 G1 (A1 B0 P0 F10)A1 B0 P1 A0 (7)	1.00	810.
12	MOVE HAMMER FROM WORKTABLE TO OTHER END OF WORKTABLE WITH 4 STEPS AND ASIDE PF 2 (4 5 6 7)	A1 B0 G1 (A6 B0 P1 A0)	1.00	160.
13	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES			

14 INSPECT

•

32740

SHEET METAL SHAPE

2

20" x 14" x 48" LG. STRAIGHT SECTION

FAB	10370	6 MIN
MARK OUT	14450	9 MIN.
WELD	44160	26 MIN.
TOTAL	68980	41 MIN

4 SHFS.

File Description ? out section

Output to line-printer <Y or N> ? N

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(39,1)
FIT •WII STRGHT.M70
MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL
SHOP
PER STRAIGHT SECTION OFG: 4 24-MAY-83
NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 20'X14'X48'L STRAIGHT SECTION
* MARK OUT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
  STEEL-TAPE AT WORKTABLE WITH 3 STEPS AND ASIDE F 4
    A1 B0 G1 A1 B0 P1 A6 M32 A1 B0 P1 A0 4.00 1760.
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE F 7
    A1 B0 G1 A1 B0 P1 A6 R3 A1 B0 P1 A0 7.00 1050.
3 MOUE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF
  WORKTABLE WITH 9 STEPS
    A1 B0 G1 A16 B0 P1 A0 1.00 190.
4 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
  STEEL-TAPE AT WORKTABLE WITH 3 STEPS AND ASIDE PF 3 (
  4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 A6 )M32A1 B0 P1 A0 (3) . . . 600.
MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE PF 5 ( 4
  5 6 7 )
    A1 B0 G1 (A1 30 P1 A6 )R3 A1 B0 P1 A0 (5) 1.00 470.
6 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 3 STEPS F 3
    A1 B0 G1 A6 B0 P6 A0 3.00 420.
7 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
  5 DIGITS USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE
  P F 3 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 A6 )R16A1 B0 P1 A0 (3) 1.00 440.
8 MOUE STRAIGHTEDGE FROM WORKTABLE TO OTHER SIDE OF
  WORKTABLE WITH 9 STEPS
    A1 R0 G1 A16 B0 F1 A0 1.00 190.
9 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 3 STEPS F 3
    A1 B0 G1 A6 B0 P6 A0 3.00 420.
10 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS
  USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 R16 )A1 B0 F1 A0 (3) 1.00 580.
11 POSITION- CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
  AT WORKTABLE F 4
    A1 B0 G1 A1 B0 P6 A0 4.00 360.
12 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2
  DIGITS USING AWL AND ASIDE PF 4 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 F1 R6 )A1 B0 P1 A0 (4) 1.00 360.
13 MOVE CORNER TEMPLATE TO OTHER SIDE OF WORKTABLE WITH 4
  STEPS
    A1 B0 G1 A6 B0 F1 A0 1.00 90.
```

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Output to line-printer <Y or N> ? N

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	A1	B0	G1	A6	HO	P3	A0	2.00	220.
2	MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE	A96	B0	G1	A96	B3	P1	A0	1.00	1970.
3	OPERATE SABER-SAW AT WORKTABLE PROCESS	A1	B0	G1	M6	X67	IO	A0	1.00	750.
4	POSITION SHEETMETAL FROM WORKTABLE TO WORKTABLE WITH 3 STEPS	A1	B0	G1	A6	B0	P6	A0	1.00	140.
5	OPERATE SABER-SAW AT WORKTABLE PROCESS	A1	B0	G1	M6	X67	IO	A0	1.00	750.
6	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	A1	B0	G1	A6	B0	P3	A0	2.00	220.
7	MOVE SHEETMETAL2 ON CART FROM WORKTABLE TO 14FTHYDROPRESSBRAKE	A1	B0	G1	A96	B0	P1	A0	1.00	990.
TOTAL TMU										5040.

7690

output to line-printer <Y or N> ?

```
*11 GAUGE GALV. SHEETMETAL
* 20'X14"X48'L STRAIGHT SECTION
* BEND SIDES--ON STRAIGHT UP 90 DEGREES
* COMPLETE IN WELD BOOTH AREA
*SEE MWELD.....SEE STRGHT.M74
FITTER BEGINS AT 14FTHYDROPPRESSBRAKE
```

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

10370

File Description ? WELD STRAIGHT SECTION

Output to line-printer <Y or N> ? N

3 9 , 3)

WELD .W01

STRGHT.M74

WELD STRAIGHT SECTION WITH ARC (STICK) WELDER AT SHEETMETAL SHOP
WELDING BOOTH

PER STRAIGHT SECTION

OFG: 4 21-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 2

- * 11 GAUGE GALV. SHEETMETAL
- * 20X14X48'L STRAIGHT SECTION
- * WELDING DONE IN WELD AREA BOOTH'
- * WELDOR PERFORMS THE WORK
- * FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

- 1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS F 2
AL B0 G1 A6 B0 P3 A0 2.00 220.
- 2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
A1 B0 G1 A131B3 P1 A0 1.00 1370.
- 3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
WELDTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
- 4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
A3 B0 G1 M1 X0 IO A32 1.00 370.
- 5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES
A1 B0 G1 M3 X0 IO A1 1.00 60.
- 6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4
A3 B3 G1 A1 B0 P6 A0 4.00 560.
- 7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4
A1 B0 G1 M1 X10 IO A0 4.00 520.
- 8 WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1
WRIST-TURN USING HAND F 21
A1 B0 G1 A1 B0 P1 F3 A0 B0 PO A0 21.00 1470.
- 9 PULL WELDHOO FROM UP AT WELDOR TO DOWN AT WELDOR F 21
A1 B0 G1 M1 X0 IO A1 21.00 840.
- LO WELDOR POSITION STINGER1 FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE F 21
A1 B0 G1 A1 B0 P6 A0 21.00 1890.
- 11 OPERATE WELD STINGER1 AT WELDTABLE PTIME 65 S F 16
A1 B0 G1 M6 X173IO A0 16.00 28960,
- 12 PUSH WELDHOO FROM DOWN AT WELDOR TO UP AT WELDOR F 21
A1 B0 G1 M1 X0 IO A1 21.00 840.
- 13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND
ASIDE PF 8 (4 5 6 7)
A1 B0 G1 (A1 B0 PO L16)A1 B0 P1 A0 (8) 1.00 1400.
- 14 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
3 2 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 C10)A1 B0 P1 A0 (32) 1.00 3880.
- 15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT

WELDTABLE WITH 4 STEPS F 2

16	FITTER	MOVE	CART	FROM	A1 B0 G1 A6 B0 P3 A 0	2.00	220.
				WELDTABLE TO WORKTABLE			
				A1 B0 G1 A131B0 P1 A0	1.00	1340.	
					TOTAL TMU		44160.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? FORM LAP END FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,101)

FIT .W12

STRGHT.M04

FORM LAP END FOR STRAIGHT SECTION WITH LAPOUT (ROTARY MACHINE) AT

SHEETMETAL SHOP

PER STRAIGHT

OFG: -4 30-JUN-83

NASSCO SHEETMETAL SHAPE 2

* 20 GAUGE GALV. SHEETMETAL

* 8'X6'X96' LG STRAIGHT SECTION

* TWO (2) FITTERS REQUIRED

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 4

A1	B0	G1	A6	B0	P3	A0	4.00	440.
----	----	----	----	----	----	----	------	------

2 PUSH LAPOUT-SWITCH PROCESS F 4

A1	B0	G1	M1	X16	IO	A0	4.00	760.
----	----	----	----	-----	----	----	------	------

3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 4 STEPS
F 4

A6	B0	G1	M1	X0	I3	A0	4.00	440.
----	----	----	----	----	----	----	------	------

4 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 4

A1	B0	G1	A6	B0	P3	A0	4.00	440.
----	----	----	----	----	----	----	------	------

5 MOUE CART FROM LAPOUT TO PITTSBURGH

A1	B0	G1	A6	B0	P1	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

TOTAL TMU							2170.
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File Description ? FORM LAP END FOR STRAIGHT SECTION

Output to line-printer <Y or N> ?

8690

File Description ? FORM PITTSBURGH FOR STRAIGHT SECTION


Output to line-Printer <Y or N> ? N

(39,101)

FIT .W12

STRGHT.M05

FORM PITTSBURGH FOR STRAIGHT SECTION WITH PITTSBURGH MACHINE AT

 SHEETMETAL SHOP

PER STRAIGHT

OFG: 4 30-JUN-83

NASSCO SHEETMETAL SHAPE 2

* 20 GAUGE GALV. SHEETMETAL

* 8'X6'X96' LG STRAIGHT SECTION

* TWO (2) FITTERS REQUIRED

FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 4

A1 B0 G1 A6 B0 P3 A0 4.00 440.

2 PUSH PITTSBURGH-BUTTON PROCESS F 4

A1 B0 G1 M1 X32 IO A0 4.00 1400.

3 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 4
STEPS F 8

A6 B0 G1 M1 X0 I3 A0 8.00 880.

4 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS F 4

A1 B0 G1 A6 B0 P3 A0 4.00 440.

-5 MOUE CART FROM PITTSBURGH TO CORNICEBRAKE

A1 B0 G1 A24 B0 P1 A0 1.00 270.

TOTAL TMU 3430.

File Description ? FORM PITTSBURGH FOR STRAIGHT SECTION

Output to line-Printer <Y or N> ?

12120

File Description ? BEND SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,101)

FIT

STRGHT.M06

BEND SHEETMETAL FOR STRAIGHT SECTION WITH CORNICE-BRAKE AT
SHEETMETAL SHOP

OFG: 4 30-JUN-83

NASSCO SHEETMETAL SHAPE 2
* 20 GAUGE GALV. SHEETMETAL
* 8'X6'X96' LG STRAIGHT SECTION
* TWO (2) FITTERS REQUIRED
* BEND STRAIGHT SIDES UP 90 DEGREES
FITTER BEGINS AT CORNICEBRAKE

1	POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	OPERATE CORNICEBRAKE-LEVER PROCESS F 2		
	A1 B0 G1 M6 X42 IO A0	2.00	1000.
3	POSITION SHEETMETAL2 FROM CORNICEBRAKE TO CORNICEBRAKE F 2		
	A1 B0 G1 A1 B0 P6 A0	2.00	180.
4	OPERATE CORNICEBRAKE-LEVER PROCESS F 2		
	A1 B0 G1 M6 X42 IO A0	2.00	1000.
5	REPLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT CORNICEBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
6	MOVE CART FROM CORNICEBRAKE TO WORKTABLE		
	AL B0 G1 A54 B3 P1 A0	1.00	600.
		TOTAL TMU	3280.

File Description ? BEND SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ?

15400

File Description ? ASSEMBLE STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(3 9 , 1 0 1)

FIT **..W12**

STRGHT.M07

ASSEMBLE STRAIGHT SECTION WITH HAMMER AT SHEETMETAL SHOP

OPER STRAIGHT OFG: 4 30-JUN-83

NASSCO SHEETMETAL SHAPE 2

* 20 GAUGE GALV. SHEETMETAL

* 8'X6'X96' LG STRAIGHT SECTION

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND PAOIDE PF 4 (4 5 6. 7)		
	A1 B0 G1 (A1 B0 PO F6)A1 B0 P1 A0 (4)	1.00	320.
3	POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE WITH 3 STEPS		
	A1. B0 G1 A6 B0 P6 A0	1.00	140.
4	PLACE SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 16		
	A1 B0 G1 A1 B0 P3 A0	16.00	960.
5	FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)		
	A1 B0 G1 (A1 B0 PO F6)A1 B0 P1 A0 (16)	1.00	1160.
6	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 10 (4 5 6 7)		
	A1 B0 G1 (A1 B0 PO F6)A1 B0 P1 A0 (10)	1.00	740.
7	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 50 (4 5 6 7)		
	A1 B0 G1 (A1 B0 PO F32)A1 B0 P1 A0 (50)	1.00	16540.
8	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS		
	A0 B0 G0 A0 B0 PO T10 A0 B0 P0 A0	1.00	100.
	TOTAL TMU		20180.

File Description ? ASSEMBLE STRAIGHT SECTION

Output to line-printer <Y or N> ?

35,580

22 MIN.

22

2

SHEETMETAL SHAPE

8" x 6" x 48" LG STRAIGHT SECTION. (STAINLESS STEEL)

WELDED AT SEAMWELDER WITH TIG-WELDER

FAB	16,850	10 MIN
MARK OUT	15,070	9 MIN
WELD	12,342	7 MIN
TOTAL TMU	44,262	27 MIN

File Description ? MARK OUT STAINLESS STEEL STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,101)

FIT .W14

STRGHT.M40

MARK OUT STAINLESS STEEL STRAIGHT SECTION WITH AWL AT SHEETMETAL

SHOP

PER STRAIGHT

OFG: 4 27-JUL-83

NASSCO SHEETMETAL SHAPE 2

* 18 GAUGE CRES

* 8'X6'X48' LG STRAIGHT SECTION

FITTER BEGINS AT WORKTABLE

- 1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE WITH 2 STEPS PF 2
(4 5 6 7)
A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (2) 1.00 720.
- 2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (2) 1.00 140.
- 3 MOUE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF
WORKTABLE WITH 9 STEPS
A1 B0 G1 A16 B1 P1 A0 1.00 190.
- 4 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING STEEL-TAPE AT WORKTABLE WITH 2 STEPS AND ASIDE
A1 B0 G1 A1 B0 P1 A3 M32 A1 B0 P1 A0 1.00 410.
- 5 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (6) 1.00 340.
- 6 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 4
A1 B0 G1 A3 B0 P6 A0 4.00 440.
- 7 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6
7)
A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (4) 1.00 760.
- 8 MOUE STRAIGHTEDGE FROM WORKTABLE TO OTHER SIDE OF
WORKTABLE WITH 9 STEPS
A1 B0 G1 A16 B0 P1 A0 1.00 190.
- 9 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 3
A1 B0 G1 A3 B0 P6 A0 3.00 3301
- 10 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AT WORKTABLE AND ASIDE WITH 4 STEPS
PF 3 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (3) 1.00 580.
- 11 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE WITH 1 STEP AND ASIDE PF 8 (4 5 6 7)
A1 B0 G1 (A3 B0 P6 A0) 1.00 740.
- 12 HARK LINES ON SHEETMETAL FROM CORNER TEMPLATE AT
WORKTABLE 2 DIGITS USING AWL AT WORKTABLE WITH 1 STEP
AND ASIDE PF 8 (4 5 6 7)
A1 E0 G1)A1 B0 P1 A3)R6 A1 B0 P1 A0 (8) 1.00 500.
- 13 MOUE CORNER TEMPLATE FROM WORKTABLE TO OTHER SIDE OF
WORKTABLE WITH 9 STEPS
A1 B0 G1 A16 B0 P1 A0 1.00 190.

14	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 1 STEPS AND ASIDE PF 8 (4 5 6 7)		
	A1 B0 G1 (A3 B0 P6 A0)	1.00	740.
15	MARK LINES ON SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE WITH 1 STEP AND ASIDE		
	A1 B0 G1 A1 B0 P1 A3 R6 A1 B0 P1 A0	1.00	150.
16	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4		
	A1 B0 G1 A3 B0 P6 A0	4.00	440.
17	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 PO F3)A1 B0 P1 A0 (4)	1.00	200.
18	MOVE CPUNCH FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS		
	A1 B0 G1 A16 B0 P1 A0	1.00	190.
19	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4		
	A1 B0 G1 A3 B0 P6 A0	4.00	440.
20	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 PO F3)A1 B0 P1 A0 (4)	1.00	200.
21	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE WITH 2 STEPS AND ASIDE PF 2 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 A3)R16A1 B0 P1 A0 (2)	1.00	300.
22	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING REDPEN AT WORKTABLE WITH 2 STEPS AND ASIDE PF 16 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 A3)R6 A1 B0 P1 A0 (16)	1.00	900.
23	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (25)	1.00	1290.
24	MOUE BLACKPEN FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS		
	A1 B0 G1 A16 B0 P1 A0	1.00	190.
25	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE		
	A1 B0 G1 A1 B0 P1 R3 A1 B0 P1 A0	1.00	90.
26	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	2640.
27	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
28	MOUE CART FROM WORKTABLE TO 14FT.SHEAR		
	A1 B0 G1 A152B0 P1 A0	1.00	1550.
		TOTAL TMU	15070,

File Description ? MARK OUT STAINLESS STEEL STRAIGHT SECTION

Output to line-Printer <Y or N> ?

Please input file (STRGHT.M41> ?

File Description ? SHEAR STAINLESS SHEETMETAL FOR STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

(39,101)

FIT .W14

STRGHT.M41

SHEAR STAINLESS STEEL SHEETMETAL FOR STRAIGHT SECTION WITH
14FT. SHEAR AT SHEETMETAL SHOP
PER STRAIGHT

OFG: 4 27-JUL-83

NASSCO SHEETMETAL SHAPE 2

* 18 GAUGE CRES

* 8'X6'X48' LG STRAIGHT SECTION

* USE 14FT. SHEAR

FITTER BEGINS AT 14FT.SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO
14FT.SHEAR WITH 4 STEPS F 2

A1	B0	G1	A6	B0	P6	A0	2.00	280.
----	----	----	----	----	----	----	------	------

2 PUSH 14FT.SHEAR-FOOTPEDALL PROCESS F 2

A1	B0	G1	M1	X3	IO	A0	2.00	120.
----	----	----	----	----	----	----	------	------

3 REPOSITION SHEETMETAL2 FROM 14FT.SHEAR TO 14FT.SHEAR F
2

A1	B0	G1	A1	B0	P6	A0	2.00	180.
----	----	----	----	----	----	----	------	------

4 PUSH 14FT.SHEAR-FOOTPEDALL PROCESS F 4

A1	B0	G1	M1	X3	IO	A0	4.00	240.
----	----	----	----	----	----	----	------	------

5 REPLACE SHEETMETAL2 FROM 14FT.SHEAR TO CART AT
14FT.SHEAR WITH 5 STEPS F 4

A1	B0	G1	A10	B0	P3	A0	4.00	600.
----	----	----	-----	----	----	----	------	------

6 MOUE CART FROM 14FT.SHEAR TO WORKTABLE

A1	B0	G1	A152B3	P1	A0	1.00	1580.
----	----	----	--------	----	----	------	-------

TOTAL TMU							3000.
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File Description ? SHEAR STAINLESS SHEETMETAL FOR STRAIGHT SECTION

Output to line-Printer <Y or N> ?

Please input file <STRGHT.M42> ?

File Description ? CUT STAINLESS SHEETMETAL FOR STRAIGHT SECTION

OutPut to line-printer <Y or N> ? N

(39,101)

FIT

STRGHT.M42

CUT STAINLESS STEEL SHEETMETAL FOR STRAIGHT SECTION WITH
SABER-SAW AT SHEETMETAL SHOP
STRAIGHT

OFG: 4 27-JUL-83

PER

NASSCO SHEETMETAL SHAPE 2

* 18 GAUGE CRES

* 8'X6'X48' LG STRAIGHT SECTION

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 4	A1 B0 G1 A6 B0 P3 A0	4.00	440.
2	MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	FASTEN SAW-BLADE TO SHEETMETAL AT WORKTABLE 3 WRIST-TURNS USING ALLEN-WRENCH AT WORKTABLE AND ASIDE	A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0	1.00	140.
4	POSITION SABER-SAW FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	A1 B0 G1 A1 B0 P6 A0	4.00	360.
	OPERATE SABER-SAW PROCESS F 4	A1 B0 G1 M6 X67 IO A0	4.00	3000.
6	MOUE SABER-SAW FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	A1 B0 G1 A16 B0 P1 A0	1.00	190.
7	POSITION SABER-SAW FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	A1 B0 G1 A1 B0 P6 A0	4.00	360.
8	OPERATE SABER-SAW PROCESS F 4	A1 B0 G1 M6 X67 IO A0	4.00	3000.
9	PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
10	MOUE CART FROM WORKTABLE TO LAPOUT	A1 B0 G1 A54 B0 P1 A0	1.00	570.
			TOTAL TMU	10250.

File Description ? CUT STAINLESS SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ?

Please input file <STRGHT.M43> ?

File Description ? FORM LAPENDS FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,101)
FIT STRGHT.M43
FORM LAPENDS FOR STRAIGHT SECTION WITH LAPOUT (ROTARY MACHINE) AT
SHEETMETAL SHOP
PER STRAIGHT OFG: 4 27-JUL-83
NASSCO SHEETMETAL SHAPE 2
* 18 GAUGE CRES
* 8'X6'X48' LG STRAIGHT SECTION
* TWO (2) FITTERS REQUIRED
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 4
A1 B0 G1 A6 R0 P3 A0 4.00 440.
2 PUSH LAPOUT-SWITCH PROCESS F 4
A1 B0 G1 M1 X16 IO A0 4.00 760.
3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 4 STEPS
F 4
A6 B0 G1 M1 X0 I3 A0 4.00 440.
4 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 4
A1 B0 G1 A6 B0 P3 A0 4.00 440.
5 MOUE CART FROM LAPOUT TO CORNICEBRAKE
AL B0 G1 A32 B0 P1 A0 1.00 350.

TOTAL TMU 2430.

File Description ? FORM LAPENDS FOR STRAIGHT SECTION

Output to line-printer <Y or N> ?

Please input file <STRGHT.M44> ?

File Description ? BEND STAINLESS STEEL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

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(39,101)
FIT .W14 STRGHT.M44
  BEND STAINLESS STEEL SHEETMETAL FOR STRAIGHT SECTION WITH
  CORNICE-BRAKE AT SHEETMETAL SHOP
  PER STRAIGHT OFG: 4 27-JUL-83
    NASSCO SHEETMETAL SHAPE 2
    * 18 GAUGE CRES
    * 8'X6'X48' LG STRAIGHT SECTION
    FITTER BEGINS AT CORNICEBRAKE

1 POSITION SHEETMETAL2 FROM CART AT CORNICEBRAKE TO
  CORNICEBRAKE WITH 4 STEPS F 2
  A1 B0 G1 A6 B0 P6 A0 280.
2 OPERATE CORNICEBRAKE-LEVER PROCESS F 2
  A1 B0 G1 M6 X42 IO A0 1000.
3 POSITION SHEETMETAL2 FROM CORNICEBRAKE TO CORNICEBRAKE
  F 2
  A1 B0 G1 A1 B0 P6 A0 180.
4 OPERATE CORNICEBRAKE-LEVER PROCESS F 2
  A1 B0 G1 M6 X42 IO A0 1000.
5 REPLACE SHEETMETAL FROM CORNICEBRAKE TO CART AT
  CORNICEBRAKE WITH 4 STEPS F 2
  A1 B0 G1 A6 R0 P3 A0 220.
6 MOVE CART FROM CORNICEBRAKE TO SEAMWELDER
  A1 B0 G1 A113B3 P1 A0 1190.

TOTAL TMU 3870.
```

File Description ? BEND STAINLESS STEEL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ?

Please input file <STRGHT.M45> ?

File Description ? WELD STAINLESS STEEL STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,101)

FIT

STRGHT.M45

WELD STAINLESS STEEL SHEETMETAL STRAIGHT SECTION WITH SEAM WELDER
AT SHEETMETAL SHOP
PER STRAIGHT

OFG: 4 27-JUL-83

NASSCO SHEETMETAL SHAPE 2

* 18 GAUGE CRES

* 8'X6'X48' LG STRAIGHT SECTION

* USE TIG-WELDING MACHINE AT SEAM WELDER

FITTER BEGINS AT SEAMWELDER

1	SLIDE SEAMWELDER POWER ON-OFF-SWITCH AT SEAMWELDER USING HAND		
	A1 B0 G1 M3 X0 IO A0	1.00	50.
2	INSPECT PANEL-LIGHTS ON SEAMWELDER 9 POINTS		
	A0 E0 G0 A0 B0 P0 T10 A0 B0 PO A0	1.00	100.
3	TWIST CARRIAGE-SPEED-SWITCH AT SEAMWELDER 1 WRIST-TURN USING HAND		
	A1 B0 G1 A1 B0 P1 C6 A0 B0 PO A0	1.00	100.
4	TWIST WIRE-SPEED-SWITCH AT SEAMWELDER 1 WRIST-TURN USING HAND		
	A1 B0 G1 A1 B0 P1 C6 A0 B0 PO A0	1.00	100.
5	TWIST SEAMWELDER VOLTAGE-METER-SWITCH 1 WRIST-TURN USING HAND		
	A1 B0 G1 A1 B0 P1 C6 A0 E0 P0 A0	1.00	100.
6	FITTER MOUE FROM SEAMWELDER TO CART AT END OF SEAMWELDER WITH 4 STEPS		
	A1 B0 G1 A6 B0 P1 A0	1.00	90.
7	OPEN SEAMWELDER-LATCH AT SEAMWELDER 1 ARM-STROKE USING HAND		
	A1 B0 G1 M3 X0 IO A0	1.00	50.
8	POSITION SHEETMETAL2 FROM CART AT SEAMWELDER TO BACK SIDE OF SEAMWELDER WITH 4 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
9	PULL DOWN CENTERING-DEVICE 1 ARM-STROKE USING HAND F 4		
	A1 B0 G1 M1 X0 IO A0	4.00	120.
10	TWIST CENTERING-DEVICE-BLADE AT SEAMWELDER 1 WRIST-TURN USING HAND F 8		
	A1 B0 G1 A1 B0 P1 C6 A0 B0 P0 A0	8.00	800.
11	PUSH AND GUIDE SHEETMETAL THROUGH SEAMWELDER CENTERING-DEVICE F 2		
	A1 B0 G1 M1 X0 13 A0	2.00	120.
12	PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S		
	A1 B0 G1 M1 X6 IO A0	1.00	90.
13	LOOSEN CARRIAGE STOP FROM CARRIAGE-TRACK AT SEAMWELDER 3 WRIST-TURNS USING ALLENWRENCH AT SEAMWELDER AND ASIDE		
	A1 B0 G1 A1 R0 P3 L6 A1 B0 P1 A0	1.00	140.
14	REPOSITION CARRIAGE-STOP FROM SEAMWELDER TO CARRIAGE-TRACK AT SEAMWELDER WITH 3 STEPS		

STRAIGHT M.45

				1	B0	G1	A6	B0	P6	A0		1.00	140.	
15	FASTEN CARRIAGE STOP AT SEAMWELDER 3 WRIST-TURNS USING ALLENWRENCH AT SEAMWELDER AND ASIDE													
		A1	B0	G1	A1	B0	P3	F6	A1	B0	P1	A0	1.00	140.
16	FITTER MOVE FROM SEAMWELDER TO CART AT END OF SEAMWELDER WITH 4 STEPS													
		A1	B0	G1	A6	B0	P1	A0				1.00	90.	
17	POSITION SHEETMETAL2 FROM CART AT SEAMWELDER TO FRONT SIDE OF SEAMWELDER WITH 4 STEPS													
		A1	B0	G1	A6	B0	P6	A0				1.00	140.	
18	SHUT SEAHWELDER-LATCH AT SEAMWELDER 1 ARM-STROKE USING HAND													
		A1	B0	G1	M3	X0	I0	A0				1.00	50.	
19	PUSH UP CENTERING-DEVICE AT SEAMWELDER 1 ARM-STROKE USING HAND F 4													
		A1	B0	G1	M1	X0	I0	A0				4.00	120.	
20	TWIST CENTERING-DEVICE-BLADE AT SEAMWELDER 1 WRIST-TURN USING HAND F 4													
		A1	B0	G1	A1	B0	P1	C6	A0	B0	P0	A0	4.00	400.
21	PUSH AND GUIDE SHEETMETAL2 THROUGH SEAMWELDER CENTERING-DEVICE													
		A1	B0	G1	M1	X0	I3	A0				1.00	60.	
22	PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S													
		A1	B0	G1	M1	X6	I0	A0				1.00	90.	
23	PUSH SEAMWELDER TORCH-UP-AND-DOWN-SWITCH PTIME 10 S													
		A1	B0	G1	M1	X32	I0	A0				1.00	350.	
24	PUSH SEAMWELDER SEQUENCE-START-SWITCH PROCESS F 1.6													
		A1	B0	G1	M1	X173	I0	A0				1.60	28.16.	
25	PUSH SEAMWELDER TORCH-UP-AND-DOWN-SWITCH PTIME 10 S													
		A1	B0	G1	M1	X32	I0	A0				1.00	350.	
26	PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2.S													
		A1	B0	G1	M1	X6	I0	A0				1.00	90.	
27	OPEN SEAMWELDER-LATCH 1 ARM-STROKE USING HAND													
		A1	B0	G1	M3	X0	I0	A0				1.00	50.	
28	REPOSITION SHEETMETAL2 FROM-SEAMWELDER TO SEAMWELDER WITH 6 STEPS													
		A1	B0	G1	A10	B0	P6	A0				1.00	180.	
29	SHUT SEAMWELDER-LATCH 1 ARM-STROKE USING HAND													
		A1	B0	G1	M3	X0	I0	A0				1.00	50.	
30	PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S													
		A1	B0	G1	M1	X6	I0	A0				1.00	90.	
31	PUSH SEAMWELDER TORCH-UP-AND-DOWN-SWITCH PTIME 10 S													
		A1	B0	G1	M1	X32	I0	A0				1.00	350.	
32	PUSH SEAMWELDER SEQUENCE-START-SWITCH PROCESS F 1.6													
		A1	B0	G1	M1	X173	I0	A0				1.60	2816.	
33	PUSH SEAMWELDER TORCH-UP-AND-DOWN-SWITCH PTIME 10 S													
		A1	B0	G1	M1	X32	I0	A0				1.00	350.	
34	PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S													
		A1	B0	G1	M1	X6	I0	A0				1.00	90.	
35	OPEN SEAMWELDER-LATCH AT SEAMWELDER 1 ARM-STROKE USING HAND													
		A1	B0	G1	M3	X0	I0	A0				1.00	50.	
36	REPLACE SHEETMETAL2 FROM SEAMWELDER TO CART AT SEAMWELDER WITH 4 STEPS													
		A1	B0	G1	A6	B0	P3	A0				1.00	110.	
37	MOVE CART FROM SEAMWELDER TO WORKTABLE													
		A1	B0	G1	A131	B3	P1	A0				1.00	1370.	

TOTAL TMU 12342.

STRGHT M45 .

File Description ? WELD STAINLESS STEEL STRAIGHT SECTION

Output to line-printer <Y or N> ?

SHEET METAL SHAPE

#2

8" X 6" X 96" LG STRAIGHT SECTION (WELDED)

WELDED AT SEAMWELDER WITH MIG WELDER

<u>FAB</u>	<u>14620</u>	<u>9</u>
<u>MARK OUT</u>	<u>16160</u>	<u>10 MIN</u>
<u>WELD</u>	<u>15,044</u>	<u>9 MIN</u>
<u>TOTAL T.M.U.</u>	<u>45824</u>	<u>27 MIN.</u>

STRGHT M20

MN.

Please input **file** <STRGHT.M20> ? N .

File Description ? MARK OUT STRAIGHT SECTION

Output to line-printer <Y or N> ? N->

(39,101)

FIT .w13 STRGHT.M20
MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL
SHOP
PER STRAIGHT OFG: 4 22-JUL-83

NASSCO SHEETMETAL SHAPE 2
* 20 GAUGE GALV. SHEETMETAL
* 8'X6'X96'L -STRAIGHT SECTION
* MARK OUT WITHOUT TEMPLATE
* WELDED WITH SEAMWELDER
FITTER BEGINS AT WORKTABLE

- 1 MEASURE DIMENSIONS N SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE WITH 2 STEPS PF 2 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (2) 1000 720.
- 2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7 1)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (2) 1.00 140.
- 3 MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF
WORKTABLE WITH 9 STEPS
.A1. B0 G1 A16 B0 P1 A0. 1.00 190.
- 4 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE WITH 2 STEPS PF 2 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (2) 1.00 720.
- 5 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
A1 B0 G1 (A1 80 P1 R3)A1 B0 P1 A0 (6) 1.00 340.
- 6 MOVE AWL FROM WORKTABLE TO OTHER END OF WORKTABLE WITH
4 STEPS
A1 B0 G1 A6 B0 P1 A0 1.00 90.
- 7 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 3J
A1 B0 G1 A3 B0 P6 A0 3.00 330.
- 8 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (3) 1.00 580.
- 9 MOVE STRAIGHTEDGE FROM WORKTABLE TO OTHER SIDE OF
WORKTABLE WITH 9 STEPS
A1 B0 G1 A16 B0 P1 A0 1.00 190.
- 10 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 3
A1 B0 G1 A3 B0 P6 A0 3.00 330.
- 11 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AT WORKTABLE AND ASIDE WITH 4 STEPS
PF 3 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (3) 1.00 580.
- 12 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL

	AT WORKTABLE WITH 1 STEP AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A3 B0 P6 A0 1	1.00	7 4 0 .
13	MARK LINES ON SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE WITH 1 STEP PF 8 (4 5 6 7)	A1 B0 G1 (A1 80 P1 R6)A1 B0 P1 A0 (8)	1.00	680.
14	MOVE CORNER TEMPLATE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	A1 B0 G1 A16 B0 P1 A0	1.00	190.
15	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 1 STEP AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A3 B0 P6 A0 1	1.00	740.
16	MARK LINES ON SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE WITH 1 STEP PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R6)A1 B0 P1 A0 (8)	1.00	680.
17	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4	A1 B0 G1 A3 B0 P6 A0	4.00	440.
18	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (4)	1.00	200.
19	MOVE CPUNCH FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	A1 B0 G1 A16 B0 P1 A0	1.00	190.
20	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS PF 4 (4 5 6 7)	A1 B0 G1 (A3 B0 P6 A0 1	1.00	380.
21	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)	A1 B0 G1 (A1 80 P0 F3)A1 B0 P1 A0 (4)	1.00	200.
22	MARK CUT LINES ON SHEETHETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE WITH 2 STEPS AND HOLD PF 2 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 A3)R16A0 B0 P0 A0 (2)	1.00	280.
23	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING REDPEN AT WORKTABLE WITH 2 STEPS AND ASIDE PF 16 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 A3)R6 A1 B0 P1 A0 (16)	1.00	900.
24	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (25)	1.00	1290.
25	MOVE BLACKPEN FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	A1 B0 G1 A16 B0 P1 A0	1.00	190.
26	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3 >k1 B0 P1 A0 (25)	1.00	1290.
27	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	2640.
28	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
29	MOVE CART FROM WORKTABLE TO SMALLSHEAR	A1 B0 G1 A67 B0 P1 A0	1.00	700.

TOTAL TMU

1 6 1 6 0 .

File Description ? MARK OUT STRAIGHT SECTION

Output to line-printer <Y or N> ?

Please input file (STRGHT.M21> ?

File Description ? SHEAR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

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( 39,101)
FIT      .W13                      STRGHT.M21
      SHEAR STRAIGHT SECTION WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP
PER STRAIGHT                      OFG: 4 -22-JUL-83
      NASSCO SHEETMETAL SHAPE 2
      * 18 GAUGE GALV. SHEETMETAL
      * 8'X6'X96' LG STRAIGHT SECTION
      * TWO (2) FITTERS REQUIRED
      * WELDED WITH SEAMWELDER
      FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
  SMALLSHEAR WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P6 A0          2.00      280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
      A1 B0 G1 M1 X6 I0 A0          2.00      180.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 2
      A1 B0 G1 A1 B0 P6 A0          2.00      180.
4 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
  SMALLSHEAR WITH 5 STEPS F 4
      A 1 B0 G1 A10 B0 P3 A0        4.00      600.
5 MOVE CART FROM SMALLSHEAR TO WORKTABLE
      A1 B0 G1 A67 B3 P1 A0         1.00      730.

                                TOTAL TMU      1970.
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File Description ? SHEAR STRAIGHT SECTION

Output to line-printer <Y or N> ?

Please input file <STRGHT.M22> ?

File Descriirtion ? CUT CORNERS FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

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' ( 39,101)
FIT      ,W13                      STRGHT,M22
      CUT CORNERS FOR STRAIGHT SECTION WITH SNIPS AT SHEETMETAL SHOP
PER  STRAIGHT                      OFG: 4   22-JUL-83
      NASSCO SHEETMETAL SHAPE 2
      * 20 GAUGE GALV. SHEETMETAL
      * 8.X6.X96' LG STRAIGHT SECT-ION
      * WELDED WITH SEAMWELDER
      FITTER BEGINS AT WORKTABLE

1.PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS F 4
                        A1  B0  G1  A6  B0  P3  A0          4.00      440.
2 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 4
                        A1  B0  G1  A1  B0  P6  A0          4.00      360.
3 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
  SNIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
      A1  B0  G1  (A1  B0  P3  C3  )A1  B0  P1  A0  (4)    1.00      320.
4 MOVE SNIPS FROM WORKTABLE TO OTHER SIDE OF WORKTABLE
  WITH 4 STEPS AND HOLD
                        A1  B0  G1  A6  B0  P1  A0          1.00       90.
'5 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 4
                        A1  B0  G1  A1  B0  P6  A0          4.00      360.
6 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
  SNIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
      A1  B0  G1  (A1  B0  P3  C3  )A1  B0  P1  A0  (4)    1.00      320.
7 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE-3
  STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5
  6 7 )
      A1  B0  G1  (A1  B0  P0  F6  )A1  B0  P1  A0  (4)    1.00      320.
8 MOVE HAMMER FROM WORKTABLE TO OTHER END OF WORKTABLE
  WITH 4 STEPS AND HOLD
                        A1  B0  G1  A6  B0  P1  A0          1.00       90.
9 FITTER MOVE HAMMER TO SHEETMETAL AT WORKTABLE
                        A1  B0  G1  A1  B0  P1  A0          1.00       40.
10 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3
  STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 (1 4 5
  6 7 )
      A1  B0  G1  (A1  B0  P0  F6  )A1  B0  P1  A0  (4)    1.00      320.
11 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
  WITH 4 STEPS F -4
                        A1  B0  G1  A6  B0  P3  A0          4.00      440.
12 MOVE CART FROM WORKTABLE TO LAPOUT
                        A1  B0  G1  A54 B0  P1  A0          1.00      570.

                                TOTAL TMU                      3670.
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5640

Please input file <STRGHT.M23> ?

File Description ? FORM LAP ENDS ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

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( 39,101)
FIT      .W13                      STRGHT.M23
      FORM LAP ENDS ON STRAIGHT SECTION WITH LAPOUT MACHINE AT
SHEETMETAL SHOP
PER STRAIGHT                      OFG: 4   22-JUL-83
      NASSCO SHEETMETAL SHAPE 2
      * 20 GAUGE GALV. SHEETMETAL
      * 8'X6'X96' LG STRAIGHT SECTION
      * TWO (2) FITTERS REQUIRED
      * WELDED WITH SEAMWELDER
      FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
  STEPS F 4
      A1  B0  G1  A6  B0  P3  A0          4.00      440.
2 PUSH LAPOUT-SWITCH PROCESS F 4
      A1  B0  G1  M1  X16  I0  A0          4.00      760.
3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 4 STEPS
  F 4
      A6  B0  G1  M1  X0  I3  A0          4.00      440.
4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
  4 STEPS F 4
      A1  B0  G1  A6  B0  P3  A0          4.00.      440.
5 MOVE CART FROM LAPOUT TO CORNICEBRAKE
      A1  B0  G1  A32  B0  P1  A0          1.00      350.

                                TOTAL TMU      2430,
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File Description ? FORM LAP ENDS ON STRAIGHT SECTION

Output to line-printer <Y or N> ?

8070

Please input file <STRGHT.M24> ?

File Description ? BEND STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,101)

FIT .W13 STRGHT.M24
BEND STRAIGHT SECTION WITH CORNICE-BRAKE AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 22-JUL-83

NASSCO SHEETMETAL SHAPE 2
* 20 GAUGE GALV. SHEETMETAL
* 8'X6'X96' LG STRAIGHT SECTION
* TWO (2) FITTERS REQUIRED
* BEND STRAIGHT SIDES UP 90 DEGREES
* WELDED WITH SEAMWELDER
FITTER BEGINS AT CORNICEBRAKE

1	POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS F 4	A1 B0 G1 A6 B0 P6 A0	4.00	560.
2	OPERATE CORNICEBRAKE-LEVER PROCESS F 4	A1 B0 G1 M6 X42 S0 A0	4.00	2000.
3	POSITION SHEETMETAL FROM CORNICEBRAKE TO CORNICEBRAKE F 4	A1 B0 G1 A1 B0 P6 A0	4.00	360.
4	OPERATE CORNICEBRAKE-LEVER PROCESS F 4	A1 B0 G1 M6 X42 I0 A0	4.00	2000.
5	REPLACE SHEETMETAL FROM CORNICEBRAKE TO CART AT CORNICEBRAKE WITH 4 STEPS F 4	A1 B0 G1 A6 B0 P3 A0	4.00	440.
6	MOVE CART FROM CORNICEBRAKE TO SEAMWELDER	A1 B0 G1 A113B3 P1 A0	1.00	1190.
			TOTAL TMU	6550.

File Description ? BEND STRAIGHT SECTION

Output to line-printer <Y or N> ?.->

14620

Please input file <STRGHT.M25> ?

File Description ? SEAM WELD STRAIGHT SECTION

Output to line-printer <Y or N> ? N

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( 39,101)
FIT      • W14                      STRGHT.M25
      WELD STRAIGHT SECTION WITH SEAM-WELDER AT SHEETMETAL SHOP
PER STRAIGHT                      OFG: 4  27-JUL-83
      SEAM-WELDING NASSCO SHEETMETAL SHAPE 2
      * 20 GAUGE GALV. SHEETMETAL
      * 8'X6'X96' LG STRAIGHT SECTION
      * WELDED WITH SEAMWELDER
      FITTER BEGINS AT SEAMWELDER

1 SLIDE SEAMWELDER POWER-SWITCH 1 WRIST-STROKE AT
  SEAMWELDER USING HAND
                                A1  B0  G1  M3  X0  I0  A0          1.00      50.
2 INSPECT PANEL LIGHTS ON SEAMWELDER 9 POINTS
  A0  B0  G0  A0  B0  P0  T10  A0  B0  P0  A0          1.00      100.
3 TWIST CARRIAGE-SPEED-SWITCH AT SEAMWELDER 1 WRIST-TURN
  USING HAND
  A1  B0  G1  A1  B0  P1  C6  A0  B0  P0  A0          1.00      100.
4 TWIST VOLTAGE-SWITCH AT SEAMWELDER 1 WRIST-TURN USING
  HAND
  A1  B0  G1  A1  B0  P1  C6  A0  B0  P0  A0          1.00      100.
5 TWIST AMP-SWITCH AT SEAMWELDER. WRIST-TURN USING HAND
  A1  B0  G1  A1  B0  31  C6  A0  B0  P0  A0          1.00      100.
6 FITTER MOVE FROM SEAMWELDER TO CART AT END OF
  SEAMWELDER WITH 4 STEPS
                                A1  B0  G1  A6  B0  P1  A0          1.00      90.
7 POSITION SHEETMETAL FROM CART AT SEAMWELDER TO BACK
  SIDE OF SEAMWELDER WITH 4 STEPS F 2
                                A1  B0  G1  A6  B0  P6  A0          2.00      280.
8 PULL DOWN CENTERING-DEVICE AT SEAMWELDER 1 ARM-STROKE
  USING HAND F 4
                                A1  B0  G1  M1  X0  I0  A0          4.00      120.
9 TWIST CENTERING-DEVICE-BLADE AT SEAMWELDER 1 WRIST-TURN
  USING HAND F 4
                                A1  B0  G1  A1  B0  P1  C6  A0  B0  P0  A0          4.00      400.
10 PUSH AND GUIDE SHEETMETAL THROUGH SEAMWELDER
  CENTERING-DEVICE F 2
                                A1  B0  G1  M1  X0  I3  A0          2.00      120.
11 PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S
                                A1  B0  G1  M1  X6  I0  A0          1.00      90.
12 LOOSEN CARRIAGE-STOP FROM CARRIAGE-TRACK _AT SEAMWELDER
  3 WRIST-TURNS USING ALLENWRENCH AT SEAMWELDER AND
  ASIDE
                                A1  B0  G1  A1  H0  P3  L6  A1  B0  P1  A0          1.00      140.
13 REPOSITION CARRIAGE-STOP FROM SEAMWELDER TO
  CARRIAGE-TRACK AT SEAMWELDER WITH 3 STEPS
                                A1  H0  G1  A6  B0  P6  A0          1.00      140.
14 FASTEN CARRIAGE-STOP AT SEAMWELDER 3 WRIST-TURNS USING
  ALLWRENCH AT SEAMWELDER AND ASIDE
                                A1  B0  G1  A1  B0  P3  F6  A1  B0  P1  A0          1.00      140.
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15	FITTER MOVE CART FROM SEAMWELDER TO END OF SEAMWELDER WITH 4 STEPS		
	A1 B0 G1 A6 B0 F1 A0	1.00	90.
16	POSITION SHEETMETAL FROM CART AT SEAMWELDER TO FRONT SIDE OF SEAMWELDER WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 F6 A0	2.00	280.
17	PUSH UP CENTERING-DEVICE AT SEAMWELDER 1 ARM-STROKE USING HAND F 4.		
	A1 B0 G1 M1 X0 I0 A0	4.00	120.
18	TWIST CENTERING-DEVICE BLADE AT SEAMWELDER 1 WRIST-TURN USING HAND F 4		
	A1 B0 G1 A1 B0 P1 C6 A0 B0 F0 A0	4.00	400.
19	PUSH AND GUIDE SHEETMETAL THROUGH SEAMWELDER		
	A1 B0 G1 M1 X0 I3 A0	1.00	60.
20	PUSH SEAMWELDER CLAMPING-DEVICE-FOOT-SWITCH PTIME 2 S		
	A1 B0 G1 M1 X6 I0 A0	1.00	90.
21	CRANK SEAMWELDER-TORCH AT SEAMWELDER 6 REVS USING HAND F 2		
	A1 B0 G1 M10 X0 I0 A0	2.00	240.
22	CRANK SEAMWELDER-TORCH AT SEAMWELDER 3 REVS USING HAND		
	A1 B0 G1 M6 X0 I0 A0	1.00	80.
23	PUSH SEAMWELDER SEQUENCE-START-SWITCH PROCESS F 5.4		
	A1 B0 G1 M1 X173I0 A0	5.40	9504.
24	CRANK SEAMWELDER-TORCH AT SEAMWELDER 6 REVS USING HAND F 2		
	A1 B0 G1 M10 X0 I0 A0	2.00	240.
25	PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S F 2		
	A1 B0 G1 M1 X6 I0 A0	2.00	180.
26	OPEN SEAMWELDER-LATCH AT SEAMWELDER 1 ARM-STROKE USING HAND F 2		
	A1 B0 G1 M3 X0 I0 A0	2.00	100.
27	REPLACE SHEETMETAL FROM SEAMWELDER TO CART AT SEAMWELDER WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
28	SHUT SEAMWELDER-LATCH AT SEAMWELDER 3 ARM-STROKES USING HAND F 2		
	A1 B0 G1 M3 X0 I0 A0	2.00	100.
29	MOVE CART FROM SEAMWELDER TO WORKTABLE		
	A1 B0 G1 A131B3 P1 A0	1.00	1370.
		TOTAL TMU	15044.

File Description ? SEAM WELD STRAIGHT SECTION


Output to line-printer <Y or N> ?

SHEET METAL SHAPE # 2


8" x 6" x 96" LG. STRAIGHT SECTION (WITH PITTSBURG)

<u>FAB</u>	<u>35380</u>	<u>21 MIN.</u>
<u>MARK OUT</u>	<u>12280</u>	<u>7 MIN.</u>
<u>TOTAL TMU.</u>	<u>47860</u>	<u>29 MIN.</u>

File Description ? MARK OUT SHEETMETAL FOR STRAIGHT SECTION

 Output to line-printer <Y or N> ? N

(39,101)
 FIT .W12 STRGHT.M01
 MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL
 SHOP
 PER STRAIGHT SECTION OFG: 4 25-JUL-83
 NASSCO SHEETMETAL SHAPE 2
 * 20 GAUGE GALV, SHEETMETAL
 * 8'X6'X96' LG STRAIGHT SECTION
 * MARK OUT WITHOUT TEMPLATE
 FITTER BEGINS AT WORKTABLE

- 1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
 STEEL-TAPE AT WORKTABLE AND ASIDE WITH 2 STEPS PF 2 (4 5 6 7)
 A1 B9 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (2) 1.00 720.
- 2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
 USING AWL AT WORKTABLE AND ASIDE PF 2 (. 4 5 6 7)
 A1 80 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (2) 1.00 140.
- 3 MOUE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF
 WORKTABLE WITH 9 STEPS
 A1 B0 G1 A16 B0 P1 A0 1.00 190.
- 4 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
 STEEL-TAPE AT WORKTABLE AND ASIDE WITH 2 STEPS PF 2 (4 5 6 7)
 A1 B0 G1 (A1 B0 P1 M32)A1 B0 F1 A0 (2) 1.0.0 720.
- 5 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
 USING AWL AT WORKTABLE WITH 2 STEPS AND ASIDE PF 8 (4 5 6 7)
 A1 B0 G1 (A1 B0 P1 A3)R3 A1 B0 P1 A0 (8) 1.00 470.
- 6 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
 WORKTABLE WITH 2 STEPS F 2
 A1 B0 G1 A3 B0 P6 A0 2.00 220.
- 7 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
 5 DIGITS USING AWL AT WORKTABLE WITH 2 STEPS AND ASIDE
 PF 2 (4567)
 A1 B0 G1 (A1 B0 F1 A3)R16A1 B0 F1 A0 (2) 1.00 300.
- 8 MOUE STRAIGHTEDGE FROM WORKTABLE TO OTHER SIDE OF
 WORKTABLE WITH 9 STEPS
 A1 B0 G1 A16 B0 P1 A0 1.00 190.
- 9 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
 WORKTABLE WITH 2 STEPS F 2
 A1 B0 G1 A3 B0 P6 A0 2.00 220.
- 10 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
 5 DIGITS USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE
 PF 2 (4567)
 A1 B0 G1 (A1 B0 P1 A6)R16A1 B0 F1 A0 (2) 1.00 360.
- 11 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
 AT WORKTABLE F 4
 A1 B0 G1 A1 B0 P6 A0 4.00 360.
-  12 MARK LINES FROM CORNER TEMPLATE TO SHEETMETAL AT
 WORKTABLE 2 DIGITS USING AWL AT WORKTABLE WITH 2 STEPS
 AND ASIDE PF 4 (4 5 6 7)
 A1 B0 G1 (A1 B0 F1 A3)R6 A1 H0 F1 A0 (4) 1.00 300.

STRAIGHT MOI

13	MOUE CORNER TEMPLATE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	A1 B0 G1 A16 B0 P1 A0	1.00	190.
14	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	A1 B0 G1 A1 B0 P6 A0 4.	4.00	360.
15	MARK LINES FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE WITH 2 STEPS AND ASIDE PF 4 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 A3)R6 A1 B0 F1 A0 (4)	1.00	300.
16	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4	A1 B0 G1 A3 B0 P6 A0	4.00	440.
17	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE WITH 2 STEPS AND ASIDE PF 3 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 A3)F3 A1 B0 P1 A0 (3)	1.00	190.
18	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE WITH 2 STEPS AND ASIDE PF 2 (4 5 6 7)	A1 80 G1 (A1 B0 P1 A3)R16A1 B0 F1 A0 (2)	1.00	300.
19	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING REDPEN AT WORKTABLE WITH 2 STEPS AND ASIDE PF 8 (4567)	A1 B0 G1 (A1 B0 F1 A3)R6 A1 B0 F1 A0 (8)	1.00	500.
20	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (25)	1.00	1290.
21	MOVE BLACKPEN FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS'	A1 B0 G1 .A16 B0 P1 A0	1.00	190.
22	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 R0 P1 A0 (25)	1.00	1290.
23	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 F1 A0 (52)	1.00	2640.
24	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
25	MOUE CART FROM WORKTABLE TO SMALLSHEAR	A1 B0 G1 A67 B0 F1 A0	1.00	700.
TOTAL TMU				12800.

File Description ? MARK OUT SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? ."rZ-i

File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(399101)

FIT 0 #12

STRGHT.M02

SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH SMALL 8FT. SHEAR AT

 SHEETMETAL SHOP
PER STRAIGHT

OFG: 4 30-JUN-83

NASSCO SHEETMETAL SHAPE 2

* 20 GAUGE GALV. SHEETMETAL

* 8'X6'X96' LG STRAIGHT SECTION

* TWO (2) FITTERS REQUIRED


FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEP F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2		
	A1 B0 G1 M1 X6 I0 A0	2.00	180.
3	POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR F 2		
	A1 B0 G1 A1 B0 P6 A0	2.00	180.
4	REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 5 STEPS F 4		
	A1 B0 G1 A10 B0 P3 A0	4.00	600.
5	MOVE CART FROM SMALLSHEAR TO WORKTABLE		
	A1 B0 G1 A67 B3 P1 A0	1.00	730.
		TOTAL TMU	1970.

File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ?

File Description 1 CUT CORNERS ON SHEETMETAL FOR STRAIGHT SECTION


 Output to line-printer <Y Or N> ? N

(39,101)

FIT .W12

STRGHT.M03

CUT CORNERS ON SHEETMETAL FOR STRAIGHT SECTION WITH SNIPS AT

 SHEETMETAL SHOP

PER STRAIGHT

OFG: 4 30-JUN-83

NASSCO SHEETMETAL SHAPE 2

* 20 GAUGE GALV. SHEETMETAL

* 8'X6'X96' LG STRAIGHT SECTION

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 4	A1 B0 G1 A6 B0 P3 A0	4.00	440.
2	POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6	A1 B0 G1 A1 B0 P6 A0	6.00	540.
3	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C3)A1 B0 P1 A0 (6)	1.00	460.
4	MOVE SNIPS FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 4 STEPS	A1 B0 G1 A6 B0 P1 A0	1.00	90.
5	POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6	A1 B0 G1 A1 B0 P6 A0	6.00	540.
6	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE. AND ASIDE PF 6 (4 5 6 7)	A1 80 G1 (A1 B0 P3 C3)A1 B0 P1 A0 (6)	1.00	460.
7	FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (6)	1.00	460.
8	MOVE HAMMER FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 4 STEPS	A1 B0 G1 A6 B0 P1 A0	1.00	90.
9	FASTEN (FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (6)	1.00	460.
10	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 4	A1 B0 G1 A6 B0 F3 A0	4.00	440.
11	MOUE CART FROM WORKTABLE TO LAPOUT	A1 B0 G1 A54 B0 P1 A0	1.00	570.
TOTAL TMU				4550.

File Description ? CUT CORNERS ON SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ?

6520

SHEET METAL SHAPE

3

8" x 8" x 5" DIA. x 9" LG SQUARE to ROUND

FAB	41460	25 MIN
MARK OUT	21660	12 MIN.
WELD	11860	7 MIN.
TOTAL	74980	45 MIN.

10242

HABCO - ANALYSIS OF ERECTION UNITS

PREPARED 09/13/82 1101 PAGE 1

PARAMETER BEHIND 03-25-83

CON	ERECTION UNIT	HULL	DESCRIPTION	END STRUCTURE	SCHED	ACTUAL	LOFTING	ACTUAL	CHASS	START DATE	DRAWING INFORMATION
										TASK DATE	SUB ASSY INSTLN
G	52-01001	410	INTERCOM STATION WATER TIGHT & BOW SHEAVES (10Y PHASE) ITEMS BELOW XXXXX ARE FOR HULL	NREC		NREC	NREC	NREC	Z	11/09/82 11/05/82	410-600-002-19A-19-B 10/29/82 11/05/82
H	52-06001	410	INTERCOM STATION WATER TIGHT & STERN SHEAVES (10Y PHASE) ITEMS BELOW XXXXX ARE FOR HULL	NREC		NREC	NREC	NREC	Z	11/09/82 11/05/82	410-600-002-19A-19-B 10/29/82 11/05/82
G	52-02001	410	NOTABLE WATER HOSE LOCKER-HOAT UTILITY LOCKER (10Y PHASE) ITEMS BELOW XXXXX ARE FOR HULL	NREC		NREC	NREC	NREC	Z	11/02/82 12/01/82	410-600-002-15B-15-B 11/22/82 12/01/82
G	52-22001	410	SHAFT COUPLING QUADRA 12 RETS (11-22) ITEMS BELOW XXXXX ARE FOR HULL	NREC		NREC	NREC	NREC	H	00/00/00 02/06/83	410-600-022-07A-02-B 01/24/83 02/06/83
G	52-03001	410	QUADRUARD PNEUMATIC CONTROL PA (2-PHASE) (13 UNITS REQD.) ITEMS BELOW XXXXX ARE FOR HULL	NREC		NREC	NREC	NREC	H	00/00/00 03/04/83	410-613-163- 02/17/83 03/20/83
G	52-00402	410	COMPLETE INSTALLATION OF CHAIN ALL LOOSE & PILFERABLE ITEMS SEE DWG FOR DETAILS	NREC		NREC	NREC	NREC	Z	02/23/83 03/16/83	410-609-009-REC-041- 03/16/83 03/16/83

UNITS BEHIND SCHED

0 774

0 944

Please input file <SQ2RND.M30> ?

File Description ? MARK OUT SQUARE TO ROUND

Output to line-printer- <Y or N> ? N

(39, 3)
FIT .W08 SQ2RND.M30
HARK OUT SHEETMETAL FOR SQUARE TO ROUND WITH AWL AT SHEETMETAL-
SHOP
PER SQUARE TO ROUND OFG: 4 -23-MAR-83

NASSCO SHEETMETAL SHAPE #3

* HULL 418
* DRAWING 501 - 292
* V2-92008
* V6-1951
* 22 GAUGE GALV. SHEETMETAL-\
* 8'X8' TO 5' DIA 9'L SQUARE TO\ROUND
* USE TEMPLATE TO MARK OUT 2 HALVES -
FITTER BEGINS A1- WORKTABLE

- 1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 2
-a--
A1 B0 G1 A6 B0 P6 A0 2.00 280.
- 2 PLACE 2 WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE -
WITH -4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
- 3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
DIGITS USING AWL AND ASIDE PF . 9 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 F1- A0 (9) 1.00 1660.
- 4 POSITION. CPUNCH FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 40
A1 B0 G1 A1 B0 P6 A0 40.00 3600.
- 5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER AT WORKTABLE AND ASIDE PF 40 (4 5 6 7)
A1 B0 G1 (A1 B0 P0 F3)A1 80 P1. A0 (40) 1.00 1640.
- 6 REPLACE 2 WEIGHTS FROM TEMPLATE TO WORKTABLE WITH 3
STEPS F 2
-----A1 B0 G1 A6 B0 P3 A0 2.00 220.
- 7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
- 8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 18 (4 5 6 7)
A1 H0 G1 (A1 B0 P1 R16)A1 80 P1 A0 (18) 1.00 3280.
- 9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 99 (4 5 6 7).
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (99) 1.00 4990.
- 10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPLEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
A1 B0 G1 (A1 H0 P1 R3)A1 B0 F1 A0 (52) 1.00 2640.
- 11 SHEETMETAL [COLLAR] AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (3) 1.00 1060.

12	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE.1 DIGIT USING AWL_ AT WORKTABLE AND ASIDE PF 3 (4 5 6 7) A1 80 G1 (A1 B0 F1 R3)A1 B0 P1 A0 (3)	1.00	190.
13	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2 ' A1 B0 G1 A1 B0 P6 A0	2.00	1 8 0 .
14	MARK LINE FROM STRAIGHTEDGE AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (2)	1.00	140.
15	MARK CUT LINE ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 3 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (3)	1.00	190.
16	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7) A1 B0 G1- (A1 B0 P1 R3)A1 B0 P1 A0 (6)	1.00	340.
17	PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE 'WITH 4 STEPS A1 B0 G1 A6 B0 P3 A0	1.00	110.
18	MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR A1 B0 G1 A67 B0 P1 A0	1.00	700.
TOTAL TMU			21660.

Type D, EM, CT, EW, EX, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR 22 GAUGE SHEETMETAL FOR SQUARE TO ROUND

Output to line-winter <Y or N> ? N

39, 3)
FIT ,W11 SQ2RND.M31
SHEAR SHEETMETAL FOR SQUARE TO ROUND WITH SMALLSHEAR AT
SHEETMETAL SHOP
PER SQUARE TO ROUND OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE #3
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1951
* 22 GAUGE GALV. SHEETMETAL
* 8'X8' TO 5'DIA. 9'L SQUARE TO ROUND
* USE TEMPLATE TO MARK OUT 2 HALVES
FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SHALLSHEAR WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS	A1 B0 G1 M1 X6 I0 A0	1.00	90.
3	POSITION SHEETMETAL2 FROM SHALLSHEAR TO SMALLSHEAR WITH 4 STEPS	A1 B0 G1 A6 B0 P6 A0	1.00	140.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 12	A1 B0 G1 M1 X6 I0 A0	12.00	1080.
5	REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 8 STEPS F 2	A1 B0 G1 A16 B0 P3 A0	2.00	420.
6	MOUE CART FROM SMALLSHEAR TO WORKTABLE	A1 B0 G1 A67 B3 P1 A0	1.00	730.
	TOTAL TMU			2740.

Type D, EM, CT. EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR RADIUS FOR SQUARE TO ROUND

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W11 SQ2RND.M32
SHEAR SHEETMETAL FOR SQUARE TO ROUND RADIUS WITH UNI-SHEAR AT
SHEETMETAL SHOP
PER SQUARE TO ROUND OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE #3
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1951
* 22 GAUGE GALV. SHEETMETAL
* 8'X8' TO 5'DIA. 9'L SQUARE TO ROUND
* SHEAR FLAT OVAL RADIUS
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE UNISHEAR AT WORKTABLE PROCESS F 2	A1 B0 G1 M6 X17310 A0	2.00	3620.
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C3)A1 B0 P1 A0 (4)	1.00	320.
5	FASTEN (FLATTEN) SHEETMETAL [CORNERS] AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 PO F6)A1 B0 P1 A0 (8)	1.00	600.
6	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
7	MOUE CART FROM WORKTABLE TO HAND-ROLLER AT WORKBENCH	A1 B0 G1 A67 B3 P1 A0	1.00	730.
TOTAL TMU				7460.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

10200

T .

Please input file <SQ2RND.M33> ?

File Description ? FORM COLLAR FOR SQUARE TO ROUND

Output to line-printer (Y or N) ? N

(39, 3)
FIT .W08 SQ2RND.M33
FORM SHEETMETAL FOR SQUARE TO ROUND COLLAR WITH
HAND OPERATED ROLLER AT SHEETMETAL SHOP
PER SQUARE TO ROUND OFG: 4 24-MAR-83
NASSCO SHEETMETAL SHAPE #3
* HULL 418
* DRAWING 501-292
* V2-92008 I
* V6-1951
* 22 GAUGE GALV. SHEETMETAL
* 8'X8' TO 5' DIA. 9'L SQUARE TO ROUND
* ROLL UP 1'X15 3/4' SHEETMETAL COLLAR
FITTER BEGINS AT WORKBENCH

1	PLACE SHEETMETAL2 FROM CART AT WORKBENCH TO HAND-ROLLER AT WORKBENCH WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110;
2	FASTEN SHEETMETAL2 WITH HAND-ROLLER AT WORKBENCH 5 SPINS USING FINGERS F 2	A1 B0 G1 A1 B0 P1 F10 A0 B0 P0 A0	2.00	280.
3	CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND	A1 B0 G1 M6 X0 I0 A0	1.00	80.
4	LOOSEN BOLT [ROLLS] TO SHEETMETAL2 AT HAND-ROLLER AT WORKBENCH 5 SPINS USING HAND	A1 B0 G1 A1 B0 P1 L10 A0 B0 P0 A0	1.00	140.
5	REPLACE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO CART AT WORKBENCH WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART WITH SHEETMETAL2 FROM WORKBENCH TO LEAFBRAKE	A1 B0 G1 A10 B0 P1 A0	1.00	130.
TOTAL TMU				850.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help) ?

11,050

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? T

lease input file <SQ2RND.M34> ?

File Description ? BEND RADIUS FOR SQUARE TO ROUND

Output to line-printer <Y or N> ?

%A command is required,

Output to line-printer <Y or N> ? N

(39, 3)

FIT . W 0 8 SQ2RND.M34
BEND SHEETMETAL FOR SQUARE TO ROUND RADIUS WITH LEAF BRAKE AT
SHEETMETAL SHOP
PER SQUARE TO ROUND DFG: 4 24-MAR-83
NASSCO SHEETMETAL SHAPE #3
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1951
* 22 GUAGE GLAV. SHEETMETAL
* 8'X8' TO 5'DIA. X 9' L SQUARE TO ROUND
* BEND RADIUS ON 2 PIECES
FITTER BEGINS AT LEAFBRAKE

1	PLACE SHEETMETAL2 FROM CART AT LEAFBRAKE TO LEAFBRAKE WITH 4 STEPS F 2	A1 R0 G1 A6 B0 P3 A0	2.00	220.
2	GRIP LEAFBRAKE [ADJUSTMENT ROD] AT LEAFBRAKE USING BOLT [VISEGRIPS] AT LEAFBRAKE AND ASIDE	A1 B0 G1 A1 R0 F3 C1 A1 B0 P1 A0	1.00	90.
3	OPERATE LEAFBRAKE-LEVER PROCESS F 80	A1 B0 G1 M6 X16 I0 A0	80.00	19200.
4	REPLACE SHEETMETAL3 FROM LEAFBRAKE TO CART AT- LEAFBRAKE WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
5	MOUE CART FROM LEAFBRAKE TO WORKTABLE	A1 B0 G1 A81 B3 P1 A0	1.00	870.
TOTAL TMU				20490.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

31,540

Please input file <SQ2RND.M36> ?

File Description ? TACK WELD SQUARE TO ROUND

Output to line-Printer <Y or N> ? N

(3 9 , 3)

FIT .W08

SQ2RND.M36

TACK SHEETMETAL FOR SQUARE TO ROUND WITH TACK WELDER AT

SHEETMETAL SHOP

PER SQUARE TO ROUND

OFG: 4 24-MAR-83

NASSCO SHEETMETAL SHAPE #3

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1951

* 22 GAUGE GALV. SHEETMETAL

* 8'X8' TO 5'DIA. 9'L SQUARE TO ROUND

* CLAMP COLLAR TO SQ2RND &TACKWELD

FITTER BEGINS AT WORKTABLE

1 MOUE VISEGRIPS AND SHEETMETAL2 FROM WORKTABLE TO
WELDOUT

A1 B0 G1 A54 B3 P1 A0 1.00 600.

2 POSITION SHEETMETAL2 FROM WELDOUT [WELDTABLE] TO
SHEETMETAL AT WELDTABLE WITH 4 STEPS

A1 B0 G1 A6 B3 P6 A0 1.00 170.

3 GRIP SHEETMETAL2 TO SHEETMETAL2 AT WELDOUT USING
VISEGRIFS AND ASIDE PF 4 (4 5 6 7)

A54 B3 G1 (A1 R0 P3 C1)A1 B0 P1 A0 (4) 1.00 800.

4 OPERATE TACKWELDER PROCESS F 10

A1 B0 G1 M6 X3 I0 A0 10.00 1100.

5 MOUE SHEETMETAL2 AND VISEGRIPS FROM WELDOUT TO
WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 3270.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

36,020

SQ2RND M.37

(39,101)
WELD .*W01

SQ2RND.M37

WELD SQUARE TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP

WELDING BOOTH

R SQUARE TO ROUND

OFG: 4 20-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 3

- * 11 GAUGE GALV. SHEETMETAL
- * 8'X8' TO 5'DIAMETER 9'L SQUARE TO ROUND,
- * WELDING DONE IN WELD BOOTH AREA
- * WELDOR PERFORMS WORK
- * FITTER TRANSPORTS SHEETMETAL
- FITTER BEGINS AT WORKTABLE

- 1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE. WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
- 2 FITTER MOUE CART FROM WORKTABLE TO WELDTABLE
A1 B0 G1 A131B3 F1 A0 1.00 1370.
- 3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
WELDTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 F3 A0 2.00 220.
- 4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
A3 80 G1 M1 X0 I0 A32 1.00 370.
- 5 WELDOR PUSH GAS-HOUP-SWITCH FROM OFF AT WELDMACHINES TO
ON AT WELDMACHINES
A1 B0 G1 M1 X0 I0 A1 1.00 40.
- 6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
1.00 70.
- WRIST-TURN USING HAND
A1 B0 G1 A1 B0 P1 F3 A0 B0 F0 A0 1.00 60.
- 7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO ON AT WELDHACHINES
A1 B0 G1 M3 X0 I0 A1 1.00 140.
- 8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE
A3 B3 G1 A1 B0 P6 A0 1.00 130.
- 9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS
A1 B0 G1 M1 X10 I0 A0 3.00 270.
- 10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE F 3
A1 B0 G1 A1 B0 P6 A0 1.00 40.
- 11 PULL WELDHOO FROM UP AT WELDOR TO DOWN AT WELDOR
A1 B0 G1 M1 X0 I0 A1 3.00 450.
- 12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 3
A1 B0 G1 A1 B6 P6 A0 6.00 5340.
- 13 WELDOR OPERATE WELD STINGER-BUTTON1 PROCESS F 6
A1 B0 G1 M6 X81 I0 A0 1.00 40.
- 14 PUSH WELDHOO FROM DOWN AT WELDOR TO UP AT WELDOR
A1 B0 G1 M1 X0 I0 A1
- 15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE
USING WIRERUSH AT WELDTABLE AND ASIDE PF 50 (4 5 6 7
)
A1 B0 G1 (A1 B0 P1 C1)A1 B0 P1 A0 (50) 2.00 220.
- 6 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
WELDTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0
- 17 FITTER MOUE CART FROM WELDTABLE TO WORKTABLE

A1	B0	G1	A131B0	P1	A0	1.00	1340.
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TOTAL						TMU	11860.
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File Description ? WELD SQUARE TO ROUND

Output to line-Printer <Y or N> ?

File Description ? RIVET SQUARE TO ROUND

Output to line-Printer <Y or N> ? N

(39, 3)
FIT .W11 SQ2RND.M38
RIVET SHEETMETAL FOR SQUARE TO ROUND WITH RIVET GUN AT SHEETMETAL
SHOP
PER, SQUARE TO ROUND OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE #3
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1951
* 22 GAUGE GALV. SHEETMETAL
* 8'X8' TO 5'DIA. 9'L SQUARE TO ROUND
* SEAL RIVET SEAM WITH SEALANT
* SEAL RIVET HEADS WITH SEALANT
FITTER BEGINS AT WORKTABLE

1	POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2		
	A1 B0 G1 A6 80 P6 A0	2.00	280.
2	MARK-RIVET HOLES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 12 (4 5 6 7		
	A1 B0 G1 (A1 B0 P1 R3)A1 E0 P1 A0 (12)	1.00	640.
3	OPERATE DRILLMOTOR ON SHEETMETAL PROCESS F 12		
	A1 B0 G1 M6 X6 I0 A0	12.00	1680.
4	POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12		
	A1 B0 G1 A1 E0 P6 A0	12.00	1080.
5	OPERATE RIVETGUN ON SHEETMETAL PROCESS F 12		
	A1 B0 G1 M6 X3 I0 A0	12.00	1320.
6	GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AND ASIDE PF 6 (4 5 6 7)		
	A1 B0 G1 (A1 E0 P3 C1)A1 B0 P1 A0 (6)	1.00	340.
7	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS		
	A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0	1.00	100.
	TOTAL TMU		5440.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

47,460

SHEET METAL SHAPE #3

9'- $\frac{1}{2}$ " X 13'- $\frac{1}{2}$ " to 12" DIA. X 18" LG. SQUARE to ROUND

FAB	76360	46 MIN.
MARK OFF	23390	14 MIN.
WELD	18260	11 MIN.
TOTAL	118010	71 MIN

T SQ2RND.M01

File Description ? MAKE READY SHEETMETAL FOR MARK OUT (SQ2RND)

Output to line-printer <Y or N> ? N

```
39, 3)
FIT      ,W04                      S Q 2 R N D . M 0 1
      MOVE SHEETMETAL FOR MARK OUT AT SHEETMETAL SHOP
PER 2 SQUARE TO ROUNDS                      OFG: 4 28-FEB-83
      HULL 420
      * DRAWING 501-062
      * V2-62003
      * '6-703
      * 20 GAUGE SHEETMETAL
      * DIMENSIONS:9 1/2'X13 1/2'TO 12'DIA, 8'L
      FITTER BEGINS AT WORKTABLE

1 MOVE TEMPLATES AND SKETCH FROM TEMPLATE RACK TO
  WORKTABLE WITH 40 STEPS
      A1 E0 G1 A67 B0 P1 A0          1.00      700.
2 READ SKETCH AT WORKTABLE 59 WORDS
      A0 B0 G0 A0 B0 P0 T32 A0 B0 P0 A0      1.00      320.
3 MOVE CART FROM WORKTABLE TO SHEETMETAL-STORAGE
      A1 B0 G1 A152B0 P1 A0          1.00     1550.
4 PLACE 20 GAUGED-SHEETMETAL FROM SHEETMETAL--STORAGE TO
  CART AT SHEETMETAL-STORAGE
      A1 80 G1 A1 E0 P3 A0          1.00       60.
5 MOVE CART FROM SHEETMETAL-STORAGE TO WORKTABLE
      A1 S0 G1 A153B3 P1 A0          1.00     1580.
6 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
      A1 80 G1 A1 80 P3 A0          1.00       60.

TOTAL TMU                                4270.
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Type D,EX,CT,EX,T,W <or H for help> ? T SQ2RND

%Error: You have described more than one file.
Consult your DIRECTORY for a full name.

~~Type D,EX,CT,EX,T,W <or H for help> ? T SQ2RND.M02~~

File Description ? HARK OUT SQUARE TO ROUND (43)

Output to line-Printer <Y or N> ? N

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( 39), 3)
FIT      ,W04                      SQ2RND.M02
      MARK OUT SHEETMETAL WITH TEMPLATE AT SHEETMETAL SHOP
PER 1 SQUARE TO ROUND                      OFG: 4 24-FEB-83
      HULL 420
      *DRAWING 501-062
```


* V6-703
 * 20 GAUGE GALV. SHEETMETAL
 * DIMENSIONS:9 1/2'X13 1/2'TO 12'DIA.18'L
 * HARK OUT 2 PIECES WITH 1 TEMPLATE
 FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 5 STEPS F 2	A1 E0 G1 A10 B0 P6 A0	2.00	360,
2	POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 4 STEPS F 2	A1 80 G1 A6 30 P6 A0	2.00	230.
3	MARK OUTLINE ON SHEETMETAL FROM TEMPLATE 1 DIGIT USING AWL AND ASIDE PF 10 (4 5 6 7) F 2	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (10)	2.00	1080.
4	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AND ASIDE PF 22 (4 5 6) F 2	A1 B0 G1 (A1 B0 P6)A0(22)	2.00	3120.
5	FASTEN CPUNCH TO SHEETMETAL ON WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 22 (4 5 6 7) F 2	A1 E0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (22)	2.00	1340.
6	REMOVE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE F 6	A1 B0 G1 A1 B0 P1 A0	6.00	240.
7	REMOVE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE F 2	A1 B0 G1 A1 B0 P1 A0	2.00	80.
8	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2	A1 B0 G1 A1 B0 P6 A0	2.00	180.
9	MARK LINES ON SHEETMETAL WITH STRAIGHTEDGE AT WORKTABLE 16 DIGITS USING AWL AND ASIDE WITH 3 STEPS PF 2 (4 5 6 7) F 2	A1 B0 G1 (A1 E0 P1 R54)A1 B0 P1 A0 (2)	2.00	2320.
10	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 50 (4 5 6 7) F2	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (50)	2.00	5080.
11	HARK CONSTRUCTION INFORMATION ON SHEETMETAL 1 DIGIT USING BLACKPEN ANF HOLD PF 56 (4 5 6 7) F 2	A1 B0 G1 (A1 B0 P1 R3)A0 B0 P0 A0 (56)	2.00	5640
12	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 16 DIGITS USING BLACKPEN AND ASIDE PF 2 (4 5 6 7) F 2	A1 B0 G1 (A1 B0 P1 R54)A1 B0 P1 A0 (2)	2.00	2320.
13	PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 6 STEPS	A1 B0 G1 A10 B0 P3 A0	1.00	150.
14	MOUE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR	A1 B0 G1 A67 B0 P1 A0	1.00	700.

TOTAL TMU 23390.

÷ 2 =
11695

Type D,EM,CT,EX,T,W <or H for help> ?

T SQ2RND.M01

Total for worksheet
801007ML

File Description ? MAKE READY SHEETMETAL FOR MARK OUT (SQ2RND)

Output to line-printer <Y or N> ? N

33, 3)
FIT .W04 SQ2RND.M01
MOVE SHEETMETAL FOR MARK OUT AT SHEETMETAL SHOP
PER 2 SQUARE TO ROUNDS OFG: 4 23-FEB-83
HULL 420
* DRAWING 501-062
* V2-62003
* V6-703
* 20 GAUGE SHEETMETAL
* DIMENSIONS:9 1/2'X13 1/2'TO 12'DIA.18'L
FITTER BEGINS AT WORKTABLE

1	MOVE TEMPLATES AND SKETCH FROM TEMPLATE RACK TO WORKTABLE WITH 40 STEPS	A1 80 G1 A67 B0 p1 A0	1.00	700.
2	READ SKETCH AT WORKTABLE 59 WORDS	A0 B0 G0 A0 B0 P0 T32 A0 B0 P0 A0	1.00	320.
3	MOUE CART FROM WORKTABLE TO SHEETMETAL-STORAGE	A1 E0 G1 A152E0 P1 A0	1.00	1550.
4	PLACE 20 GAUGED-SHEETMETAL FROM SHEETMETAL-STORAGE TO CART AT SHEETMETAL-STORAGE	A1 B0 G1 A1 B0 P3 A0	1.00	60.
5	MOVE CART FROM SHEETMETAL-STORAGE TO WORKTABLE	A1 B0 G1 A152B3 P1 A0	1.00	1550.
6	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE	A1 B0 G1 A1 B0 P3 A0	1.00	60.
TOTAL THU				4270.

Type D, EM, CT, EX, T, W <or H for help> ?

File Description ? MARK OUT SQUARE TO ROUND (43)

Output to line-Printer <Y or N> ? N

39,3)

.W04

SQ2RND.M02

MARK OUT SHEETMETAL WITH TEMPLATE AT SHEETMETAL SHOP

PER 1 SQUARE TO ROUND

OFG: 4 24-FEB-83

HULL 420

* DRAWING 501-062

* V2-62003

* V6-703

* 20 GAUGE GALV. SHEETMETAL

* DIMENSIONS:9 1/2'X13 1/2'TO 12'DIA, 18'L

* MARK OUT 2 PIECES WITH 1 TEMPLATE

FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 5 STEPS F 2

A1 B0 01 A10 B0 P6 A3 2.00 360.

2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT
WORKTABLE WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 230.

3 MARK OUTLINE ON SHEETMETAL FROM TEMPLATE 1 DIGIT USING
AWL AND ASIDE PF 10 (4 5 6 7) F 2

A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (10) 2.00 1030.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AND ASIDE
PF 22 (4 5 6) F 2

A1 B0 G1 (A1 B0 P6)A0 (22) 2.00 3120.

5 FASTEN CPUNCH TO SHEETMETAL ON WORKTABLE 1 STRIKE USING
HAMMER AND ASIDE PF 22 (4 5 6 7) F 2

A1 D0 G1 (A1 B0 P0 F3)A1 E0 P1 A0 (22)2.00 1340.

6 REMOVE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE
F 4

A1 E0 G1 A1 B0 P1 A0 4.00 240.

7 REMOVE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE F 2

A1 B0 G1 A1 B0 P1 A0 2.00 30.

3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 2

A1 B0 G1 A1 B0 P6 A0 2.00 130.

9 MARK LINES ON SHEETMETAL WITH STRAIGHTEDGE AT WORKTABLE
16 DIGITS USING AWL AND ASIDE WITH 3 STEPS PF 2 (4 5
6 7) F 2

A1 B0 G1 (A1 B0 P1 R54)A1 B0 P1 A0 (2) 2.00 2320.

10 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
REDPEN AT WORKTABLE AND ASIDE PF 50 (4 5 6 7) F 2

A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (50) 2.00 5080.

11 MARK CONSTRUCTION INFORMATION ON SHEETMETAL 1 DIGIT
USING BLACKPEN ANF HOLD PF 56 (4 5 6 7) F 2

B0 G1 (A1 B0 F1 R3)A0 B0 P0 A0 (56) 2.00 5640.

12 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 16
DIGITS USING BLACKPEN AND ASIDE PF 2 (4 5 6 7) F 2

A1 B0 G1 (A1 B0 P1 R54)A1)B0 P1 A0 (2) 2.00 2320.

13 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 6 STEPS

A1 B0 G1 A10 B0 P3 A0 1.00 150.

14	MOVE	CART	WITH	SHEETMETAL2	FROM	WORKTABLE	TO	SMALLSHEAR					
				A1	B0	01	A67	B0	P1	A0	1.00	700.	
											TOTAL	TMU	23390.

Type D, EM, CT, EX, T, W <or H for help> ?

File Description ? SHEAR OUTLINE OF SQUARE TO ROUND (#3)

Output to Line-Printer <Y or N> ? N

(39, 3)

FIT . W11

SQ2RND.M03

SHEAR SHEETMETAL-OUTLINE OF SQ2RND (#3) ON 20 GAUGE SHEETMETAL
WITH SMALL SHEAR AT SHEETMETAL SHOP

PER SQUARE TO ROUND

OFG: 4 08-JUL-83

NASSCO SHEETMETAL PART # 3 (FROM HULL 420)

* DRAWING 501-062

* V2-62003

* 20 GAUGE GALV. SHEETMETAL

* DIMENSIONS: 9 1/2' X 13 1/2' TO 12' DIA. 18' L

* V6-703

FITTER BEGINS AT SMALLSHEAR

1 POSITION 4X8 SHEETMETAL2 FROM CART AT SMALLSHEAR TO
SMALLSHEAR F 2

A1	B0	G1	A1	E0	P6	A0	2.00	180.
----	----	----	----	----	----	----	------	------

2 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL2
PROCESS

A1	B0	G1	M1	X6	I0	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR F 6

A1	B0	G1	A1	E0	P6	A0	6.00	540.
----	----	----	----	----	----	----	------	------

4 PUSH FOOTPEDAL AT SMALLSHEAR CUTTING LINES ON
SHEETMETAL2 PROCESS F 6

A1	B0	G1	M1	X6	I0	A0	6.00	540.
----	----	----	----	----	----	----	------	------

5 PLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR
WITH 16 STEPS PBEND

A1	B0	G1	A32	B3	P3	A0	1.00	400.
----	----	----	-----	----	----	----	------	------

6 MOUE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTAP1G

A1	B0	G1	A67	B3	P1	A0	1.00	730.
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TOTAL TMU							2480.
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

TSQ2RND,MOS

File Description ? FORM SQUARE TO ROUND (#3) RADIUS

OutPut to line-Printer <Y or N> ? N

39, 3)
 FIT ,wo4 SQ2RND .MO5
 FORM SQUARE TO ROUND (#3) ON 20 GAUGE SHEETMETAL WITH LEAFBRAKE
 AT SHEETMETAL SHOP
 PER SQUARE TO ROUND DFG: 4 2B-FEB-83
 HULL 420
 * DRAWING 501-062
 * V2-62003
 * V6-703
 * 20 GAUGE GALV, SHEETMETAL
 * DIMENSIONS:9 1/2'X13 1/2 TO 12DIA 18'L
 FITTER BEGINS AT LEAFBRAKE

1	POSITION SHEETMETAL2 FROM CART AT LEAFBRAKE TO LEAFBRAKE F 60								
		A1	B0	G1	A1	B0	P6	A0	60 . 00 5400.
2	POSITION SHEETMETAL2 FROM CART AT LEAFBRAKE TO LEAFBRAKE F 60								
		A1	B0	G1	A1	B0	P6	A0	60.00 5400.
3	OPERATE LEAFBRAKE-LEVER AT LEAFBRAKE PROCESS F 60								
		A1	B0	G1	MS	X16	IO	A0	60,00 14400.
4	OPERATE LEAFBRAKE-LEVER AT LEAFBRAKE PROCESS F 60								
		A1	B0	G1	M6	X16	IO	A0	60,00 14400.
5	PLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LEAFBRAKE								
		A1	B0	G1	A1	PO	P3	A0	1.00 60.
4	MOUE CART FROM LEAFBRAKE TO ROLLER								
		A1	B0	G1	A32	B0	P1	A0	1.00 350
7	PLACE HAMMER FROM WORKTABLE TO CART AT WORKTABLE								
		A54	B3	G1	A1	B0	P3	A0	1.00 620
TOTAL TMU									40630.

Type D,EX,CT,EX,T,W <or H for help> ?

47510

File Description ? FORM SQUARE TO ROUND DIAMETER

Output to line-printer <Y or N> ? N

39, 3)

FIT .W04

SR2RND •

FORM SQUARE TO ROUND (#3). WITH ROLLER (ROLL FORMER) AT SHEETMETAL
SHOP

PER SQUARE TO ROUND (#3)

OF6: 4 28-FEB-83

HULL 420

* DRAWING 501-062

* V2-62003

* V6-703

* 20 GAUGE GALV, SHEETMETAL

* DIMENSIONS: 9 1/2X13 1/2'TO12'DIA,18L

FITTER BEGINS AT ROLLER

- 1 POSITION SHEETMETAL FROM CART AT ROLLER TO ROLL FORMER
AT ROLLER

A1	B0	G1	A1	B0	P6	A0	1.00	90.
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- 2 FASTEN (KINK) SHEETMETAL2 TO ROLLER AT ROLL FORMER 3
STRIKES USING HAMMER AND ASIDE PF 2 (4 5 6 5 7)

A54	B3	G1	(A54	B0	PO	F6)A1	B0	P1	A0	(2)	1.00	1300.
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- 3 FASTEN (ROLLS) NUT TO SHEETMETAL AT ROLLER 5
WRIST-STROKES USING HAND F 2

A1	B0	G1	A1	B0	P1	F16	A0	B0	PO	A0	2.00	400.
----	----	----	----	----	----	-----	----	----	----	----	------	------

- 4 OPERATE ROLLER-BUTTON AT ROLLER PROCESS F 4

A1	B0	G1	MS	X96	I0	A3	4.00	4160.
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- 5 PLACE SHEETMETAL2 FROM ROLLER (ROLL FORMER) TO CART.
AT ROLLER WITH 8 STEPS

A1	B0	G1	A16	B0	P3	A0	1.00	210.
----	----	----	-----	----	----	----	------	------

- 6 MOVE CART WITH SHEETMETAL2 FROM ROLLER (ROLL FORMER)
TO WORKTABLE

A1	B0	G1	A54	B3	P1	A0	1.00	600.
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TOTAL	TMU	7260.
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Type D,EX,CT,EX,T,W <or H for help> ?

54770

File Description ? ASSEMBLE SQUARE TO ROUND (#3)

Output to line-Printer <Y or N> ? N

39, 3)

FIT .wo4 SQ2RND.M07
 ASSEMBLE SQUARE TO ROUND (#3) WITH RIVET GUN AT SHEETMETAL SHOE
 PER SQUARE TO ROUND (#3) DFG: 4 28-FEB-83
 HULL 420
 * DRAWING 501-062
 * V2-62003
 * U6-703
 * 20 GAUGE GALV, SHEETMETAL
 * DIMENSIONS:91/2'X131/2'TO 12'DIA.X18'L
 FITTER BEGINS AT WORKTABLE

1	GET+PLACE SHEETMETAL2 FROM CART AT WORKTABLE 4 STEPS TO WORKTABLE WITH 4 STEPS	A.5 B0 G3 A6 B0 P3 A0	1.00	180.
2	INSPECT SHEETMETAL RADIUS 6 POINTS USING RADIUS TEMPLATE AND ASIDE	A0 B0 GO A0 B0 PO T10 A0 B0 P0 A0	1.00	100.
3	FASTEN (FORM) SHEETMETAL AT WORKTABLE 12 STRIKES USING HAMMER AND ASIDE PF 2 (4 5 6 7)	A1 B0 G1 (A1 B0 PO F24)A1 B0 P1 A0 (2)	1.00	540.
4	POSITION SHEETMETAL FROM WORKTABLE TO WORKTABLE	A1 B0 G1 A1 B0 P6 A0	1.00	90.
5	GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AND ASIDE PF 2 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (2)	1.00	140.
5	GET+POSITION DRILLMOTOR TO SHEETMETAL AT WORKTABLE	A1 B0 G3 A1 B0 P6 A0	1.00	110.
7	OPERATE DRILLMOTOR ON SHEETMETAL AT WORKTABLE AND ASIDE PROCESS F 4	A1 B0 G1 MS X6 IO A0	4.00	5.50,
8	GET+POSITION RIVETGUN TO SHEETMETAL AT WORKTABLE	A1 B0 G3 A1 B0 P6 A0	1.00	110.
9	OPERATE RIVETGUN ON SHEETMETAL AT WORKTABLE PROCESS F 4	A1 B0 G1 M6 X3 IO A0	4.00	440.
10	FITTER MOUE FLANGE FROM FLANGEAREA TO WORKTABLE	A152B0 G1 A152B3 P1 A0	1.00	30901
11	GET+PLACE SHEETMETAL (FLANGE COLLAR) FROM WORKTABLE TO SHEETMETAL (TRANSFORMER COLLAR) AT WORKTABLE WITH 5 STEPS	A1 B0 G3 A10 PO P3 A0	1.00	170.
12	MARK SHEETMETAL (FLANGE COLLAR) AT WORKTABLE 16 DIGITS USING AWL AND ASIDE	B0 G1 B0 P1 R54 A1 B0 P1 A0	1.00	600.
13	CUT SHEETMETAL (FLANGE COLLAR) AT WORKTABLE 4 CUTS USING SNIPS AT WORKTABLE AND ASIDE	A1 B0 G1 A1 PO P3 C6 A1 B0 P1 A0	1.00	140
14	GET+PLACE SHEETMETAL AND FLANGE FROM WORKTABLE TO CART AT WORKTABLE WITH 8 STEPS	A1 B0 G3 A16 B0 P3 A0	1.00	230.
15	MOUE CART WITH SHEETMETAL FROM WORKTABLE TO WELDOUT (TABLE)	A1 B0 G1 A54 B3 P1 A0	1.00	600.

TOTAL THU

7100.

ype D,EM,CT,EX,T,W <or H for help> ?

61,870

File Description ? TACK WELD COLLAR TO SQUARE TO Round (#3)

Output to line-printer <Y or N> ? N

39, 3)

PIT ,w04

S Q 2 R N D • M O B

TACK WELD COLLAR ON SQUARE TO ROUND (#3) WITH TACKWELDER AT
SHEETMETAL SHOP

PER SQUARE TO ROUND

OFG: 4 28-FEB-83

HULL 420

* DRAWING 501-062

* V2-62003

* V6-703

* 20 GAUGE GALV. SHEETMETAL

* DIMENSIONS:9 1/2X13 1/2TO 12'DIAX18'L

* WELDING OPERATIONS IN MWELD PROGRAM

FITTER BEGINS AT WELDOUT

1	MOUE SHEETMETAL FROM CART 4 STEPS AT WELDOUT TO WELDOUT (TABLE) WITH 4 STEPS	AS B0 G1 AS B0 P1 A0	1.00	140 .
2	PLACE SHEETMETAL2 (COLLAR) FROM WELDOUT (TABLE) TO SHEETMETAL (TRANSFORMER AT WELDOUT (TABLE) WITH 6 STEPS	A1 B0 G1 A10 B0 P3 A0	1.00	150.
3	GRIP SHEETMETAL2 AT WELDOUT (TABLE) USING VISE-GRIPS AT WELDOUT AND ASIDE PF 2 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (2)	1.00	140.
4	POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL AT WELDOUT F 10	A1 B0 G1 A1 B0 P6 A0	10.00	900.
5	OPERATE TACKWELDER 'ON SHEETMETAL AT WELDOUT PROCESS F 10	A1 B0 G1 M6 X3 IO A0	10.00	1100.
6	REPLACE SHEETMETAL FROM WELDOUT (TABLE) TO CART AT WELDOUT WITH 8 STEPS	A1 B0 G1 A16 B0 P3 A0	1.00	210.
7	MOVE CART WITH SHEETMETAL 2 FROM WELDOUT TO WORKTABLE	A1 B0 G1 A54 B3 P1 A0	1.00	600 .
			TOTAL TMU	3240.

Type D,EM,CT,EX,T,W <or H for help> ?

65,110

N

Please input file <SQ2RND.M09>. ?

le Description ? WELD SQUARE TO ROUND

Output to line-printer <Y or N> ? N

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( 39,101)
WELD .W01                      SQ2RND.M09
    WELD SQUARE TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP
WELDING BOOTH
PER SQUARE TO ROUND          OFG: 4   20-JUL-83
    WELDING NASSCO SHEETMETAL SHAPE 3
    * HULL 420
    * DRAWING 501-062
    * V2-62003
    * V6-703
    * 20 GAUGE GALV. SHEETMETAL
    * 9 1/2.X13 1/3' TO 12' DIAMETER X 18'L
    * WELDING DONE IN WELD BOOTH AREA
    * WELDOR PERFORMS WORK
    * FITTER TRANSPORTS SHEETMETAL
    FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CAR
  AT WORKTABLE WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0          2.00      220.
2 FITTER MOUE CART FROM WORKTABLE TO WELDTABLE
      A1 B0 G1 A131B3 P1 A0        1.00     1370.
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
  WELDTABLE WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0          2.00      220.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFFF AT
  WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
      A3 B0 G1 M1 X0 IO A32        1.00      370.
5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
  TO ON AT WELDMACHINES
      A1 B0 G1 M1 X0 IO A1          1.00      40.
4 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
  WRIST-TURN USING HAND
      A1 B0 G1 A1 B0 P1 F3 A0 B0 PO A0 1.00      70.
7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
  WELDMACHINES TO ON AT WELDMACHINES
      A1 B0 G1 M3 X0 IO A1          1.00      60.
8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
  TO SHEETMETAL ASSEMBLY AT WELDTABLE
      A3 B3 G1 A1 B0 B0 P6 A0        1.00     140.
9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS
      A1 B0 G1 M1 X10 IO A0          1.00     130.
10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
  ASSEMBLY AT WELDTABLE F 4
      A1 B0 G1 A1 E0 P6 A0          6.00     540.
11 PULL WELDHOO FROM UP AT WELDOR TO DOWN AT WELDOR F 6
      A1 B0 G1 M1 X0 IO A1          6.00     240.
12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
  ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 4
      A1 B0 G1 A1 B6 P6 A0          6.00     900.
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13 OPERATE WELD STINGER-BUTTON1 PROCESS F 12
      A1 B0 G1 M6 X81 IO A0      12.00      10680.
14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4
      A1 B0 G1 M1 X0 IO A1      6.00        240.
15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
    ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
    12 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 C10 )A1 B0 P1 A0 (12) 1000      1480.
16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
    WELDTABLE WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0      2.00        220.
17 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE
      A1 B0 G1 A131BO P1 A0      1.00      1340.

                                TOTAL TMU      18260.

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File Description ? WELD SQUARE TO ROUND

Output to line-printer <Y or N> ? ☒

File Description ? RIVET SQUARE TO ROUND (#3)

Output to line-printer <Y or N> ? N

39, 3)

FIT .wo4

SQ2RND,MO9

RIVET SQUARE TO ROUND (#3) WITH RIVET GUN AT SHEETMETAL SHOP
PER SQUARE TO ROUND (#3) OFG: 4 28-FEB-83

HULL 420

* DRAWING 501-062

* V2-62003

* V6-703

* 20 GAUGE GALV. SHEETMETAL

* DIMENSIONS:9 1/2X13 1/2TO 12'DIAX18"L

* WELDING OPERATIONS IN MWELD

FITTER BEGINS AT WORKTABLE

- 1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH.8 STEPS

A1	B0	G1	A16	B0	P3	A0	1.00	210.
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- 2 MARK RIVET HOLES ON SHEETMETAL AT WORKTABLE FROM
RIVET-HOLE-GUIDE 1 DIGIT USING BLACKPEN AT WORKTABLE
AND ASIDE PF 16 (4 5 4 7)

A1	B0	G1	(A1	B0	P1	R3)A1	B0	P1	A0	(16)	1.00	840.
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- 3 POSITION DRILLMOTOR TO SHEETMETAL AT WORKTABLE F 16

A1	B0	G1	A1	B0	P6	A0	16.00	1440.
----	----	----	----	----	----	----	-------	-------

- 4 OPERATE DRILLMOTOR ON SHEETMETAL AT WORKTABLE PROCESS F
16

A1	B0	G1	M6	X6	IO	A0	16.00	2240.
----	----	----	----	----	----	----	-------	-------

- 5 POSITION RIVETGUN TO SHEETMETAL AT WORKTABLE F 16

A1	B0	G1	A1	B0	P6	A0	16.00	1440.
----	----	----	----	----	----	----	-------	-------

- 4 OPERATE RIUETGUN ON SHEETMETAL AT WORKTABLE PROCESS F
1 6

A1	B0	G1	M6	X3	IO	A0	16.00	1740.
----	----	----	----	----	----	----	-------	-------

- 7 POSITION CAULKINGGUN TO SHEETMETAL AT WORKTABLE F 2

A1	B0	G1	A1	B0	P6	A0	2.00	180.
----	----	----	----	----	----	----	------	------

- 3 GRIP SEALANT TO SHEETMETAL DIFFICULT USING CAULKINGGUN
AND ASIDE PF 25 (45467)

A1	B0	G1	(A1	B0	P10	C1)A1	B0	P1	A0	(25)	1.00	3040.
----	----	----	-----	----	-----	----	-----	----	----	----	------	------	-------

- 9 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

A0	B0	GO	A0	B0	PO	T10	A0	B0	PO	A0	1.00	100.
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TOTAL TMU	11250.
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Type D,EM,CT,EX,T,W <or H for help> ?

76,360

SHEET METAL SHAPE

3

14" X 12" to 13" DIA. SQUARE to ROUND

FAB	35550	21 MIN
MARK OF	20160	12 MIN
WELD	36850	22 MIN
TOTAL TMU	92560	56 MIN

File Description ? MARK OUT SHEETMETAL FOR SQUARE TO ROUND

Output to line-printer <Y or N> ? N

(39, 1)

FIT 0 W11

SQ2RND.M50

MARK OUT SHEETMETAL FOR SQUARE TO ROUND WITH AWL AT SHEETMETAL
SHOP

PER SQUARE TO ROUND

OFG: 4 25-MAY-83

NASSCO SHEETMETAL SHAPE 3

* 11 GAUGE GALV. SHEETMETAL

* 14'X12'X13' DIAMETER SQUARE TO ROUND

* MARK OUT WITH TEMPLATE

* MARK OUT COLLAR WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

- 1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.
- 2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATES AT
WORKTABLE WITH 3 STEPS F 4
A1 B0 G1 A6 B0 P6 A0 4.00 560.
- 3 MARK OUTLINE ON SHEETMETAL FROM TEMPLATE AT WORKTABLE 5
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6) 1.00 1120.
- 4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 34
A1 B0 G1 A3 B0 P6 A0 34.00 3740.
- 5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER AT WORKTABLE AND ASIDE PF 34 1 4 5 6 7)
A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (34) 1.00 1400.
- 6 REPLACE WEIGHTS FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 3 STEPS F 4
A1 B0 G1 A6 B0 P3 A0 4.00 440.
- 7 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
- 8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6) 1.00 1120.
- 9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 98 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (98) 1.00 4940,
- 10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52) 1.00 2640.
- 11 MEASURE DIMENSIONS ON SHEETMETAL [FOR COLLAR] AT
WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 2
(4 5 6 7)
A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (2) 1.00 720.
- 12 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (2) 1.00 1 4 0 .
- 13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT

5Q2RND M50

WORKTABLE F 2

	A1	B0	G1	A1	B0	P6	A0	2.00	180.				
14	MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)												
	A1	B0	G1	(A1	B0	P1	R16)A1	B0	P1	A0 (2)	1.00	400.	
15	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE												
	A1	B0	G1	A1	B0	P1	R16	A1	B0	P1	A0	1.00	220.
16	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)												
	A1	B0	G1	(A1	B0	P1	R3)A1	B0	P1	A0 (6)	1.00	340.	
17	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)												
	A1	B0	G1	(A1	B0	P1	R3)A1	B0	P1	A0 (12)	1.00	640.	
18	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2												
	A1	B0	G1	A6	B0	P3	A0	2.00	220.				
19	MOVE CART FROM WORKTABLE TO 14FT.SHEAR												
	A1	E0	G1	A81	B0	P1	A0	1.00	840.				

TOTAL TMU 20160.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,w <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR SQUARE ID ROUND

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 SQ2RND,M51
SHEAR SHEETMETAL FOR SQUARE TO ROUND WITH 14FT, SHEAR AT
SHEETMETAL SHOP
PER SQUARE TO ROUND OFG: 4 25-MAY-83
NASSCO SHEETMETAL SHAPE 3
* 11 GAUGE GALV. SHEETMETAL
* 14'X12'X13' DIAMETER SQUARE TO ROOUND
* SHEAR 1 1/2' STRIP FOR COLLAR
FITTER BEGINS AT 14FT.SHEAR

1	POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 2	A1 B0 G1 M1 X3 IO A0	2.00	120.
3	POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR WITH 2 STEPS F 13	A1 B0 G1 A3 B0 P6 A0	13.00	1430,
4	PUSH 14FT,SHEAR-FOOTPEDAL. PROCESS F 16	A1 B0 G1 M1 X3 IO A0	16.00	960.
5	REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT 14FT.SHEAR WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM 14FT.SHEAR TO WORKTABLE	A1 B0 G1 A81 B3 P1 A0	1.00	870.
			TOTAL TMU	3770.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT RADIUS FOR SQUARE TO ROUND

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 SQ2RND.M52
CUT RADIUS FOR SQUARE TO ROUND WITH SABER-SAW AT SHEETMETAL SHOP
PER SQUARE TO ROUND OFG: 4 25-MAY-83
NASSCO SHEETMETAL SHAPE 3
* 11 GAUGE GALV. SHEETMETAL
* 14'X12'X13' DIAMETER SQUARE TO ROUND
* CUT RADIUS AND CORNERS WITH UNI-SHEAR
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM &ART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 H0 P3 A0	2.00	220.
2	MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE		
	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE SABER-SAW AT WORKTABLE PROCESS F 4		
	A1 B0 G1 M6 X67 I0 A0	4.00	3000.
4	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
5	MOVE CART FROM WORKTABLE TO 14FTHYDROPPRESSBRAKE		
	A1 H0 G1 A96 B0 P1 A0	1.00	990.
	TOTAL TMU		6290.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

/ 0 , 0 6 U

File Description ? BEND RADIUS FOR SQUARE TO ROUND

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 SQ2RND.M53
BEND RADIUS FOR SQUARE TO ROUND WITH 14FT. HYDRO-PRESS-BRAKE AT
SHEETMETAL SHOP
PER SQUARE TO ROUND OFG: 4 25-MAY-83
NASSCO SHEETMETAL SHAPE 3
* 11 GAUGE GALV. SHEETMETAL
* 14'X12'X13' DIAMETER SQUARE TO ROUND
* BEND RADIUS FOR SQUARE TO ROUND
FITTER BEGINS AT 14FTHYDROPPRESSBRAKE

1	POSITION SHEETMETAL FROM CART AT 14FTHYDROPPRESSBRAKE TO 14FTHYDROPPRESSBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH 14FTHYDROPESSBRAKE-FOOTPEDAL PROCESS		
	A1 B0 G1 M1 X24 IO A0	1.00	270.
3	POSITION SHEETMETAL2 FROM 14FTHYDROPPRESSBRAKE TO 14FTHYDROPPRESSBRAKE WITH 3 STEPS F 31		
	A1 B0 G1 A6 B0 P6 A0	31.00	4340.
4	PUSH 14FTHYDROPESSBRAKE-FOOTPEDAL PROCESS F 31		
	A1 B0 G1 M1 X24 IO A0	31.00	8370.
5	REPLACE SHEETMETAL FROM 14FTHYDROPPRESSBRAKE TO CART AT 14FTHYDROPPRESSBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
6	MOVE CART FROM 14FTHYDROPPRESSBRAKE TO ROLLER		
	A1 B0 G1 A54 B0 P1 A0	1.00	570.
		TOTAL TMU	14050.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

24,110

File Description ? FORM COLLAR FOR SQUARE TO ROUND

Output to line-printer <Y or N> ? N

(39, 1)

FIT • W11

SQ2RND.M54

FORM COLLAR FOR SQUARE TO ROUND WITH ROLLER (ROLL FORMER) AT
SHEETMETAL SHOP

PER SQUARE TO ROUND

OFG: 4 25-MAY-83

NASSCO SHEETMETAL SHAPE 3

* 11 GAUGE GALV. SHEETMETAL

* 14'X12'X13' DIAMETER SQUARE TO ROUND

* ROLL UP 13'DIAMETER COLLAR FOR--

* --SQUARE TO ROUND

* CHECK DIAMETER WITH RADIUS ON SQUARE--

* --TO ROOUND

* COMPLETE IN WELD BOOTH AREA

* SEE MWELD . . .SEE SQ2RND.M55

FITTER BEGINS AT ROLLER

1 POSITION SHEETMETAL2 FROM CART AT ROLLER TO ROLLER WITH
4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 FASTEN NUT [ROLLS] TO SHEETMETAL2 AT WORKTABLE 3
WRIST-TURNS USING HAND F 4

A1 B0 G1 A54 B3 P1 F6 A0 B0 P0 A0 4.00 2640.

3 PUSH ROLLER-BUTTON PROCESS F 4

A54 B0 G1 M1 X96 IO A0 4.00 6080.

4 POSITION SHEETMETAL2 [COLLAR FROM WORKTABLE TO
SHEETMETAL [SQUARE TO ROUND] AT WORKTABLE WITH ?
STEPS F 2

A54 B3 G1 A3 B0 P6 A0 2.00 1340.

5 REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH
4 STEPS

A54 B0 G1 A6 B0 P3 A0 1.00 640.

6 MOUE CART FROM ROLLER TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 11440.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

35,550

Please input file <SQ2RND.M55> ?

'le Description ? WELD SQUARE TO ROUND

Output to line-Printer <Y or N> ? N

(39,101)

WELD • W01

SR2RND.M55

WELD SQUARE TO ROUND WITH ARC (STICK) WELDER AT SHEETMETAL SHOP
WELDING BOOTH

PER SQUARE TO. ROUND

OFG: 4 21-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 3

* 11 GAUGE GALV. SHEETMETAL

* 14X12X13'DIAMETER SQUARE TO ROUND X20'L

* WELDOR PERFORMS THE WORK

* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FITTER MOVE CART FROM WORKTABLE TO WELDTABLE		
	A1 B0 G1 A131B3 F1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220 .
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF A1- WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 B0 G1 M1 X0 IO A32	1.00	370.
5	WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M3 X0 IO A1	1.00	60.
6	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2		
	A3 B3 G1 A1 B0 F6 A0	2.00	280 •
7	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2		
	A1 B0 G1 M1 X10 IO A0	2.00	260.
8	WELDOR FASTEN WELDROD TO STINGER AT WELDTABLE 1 WRIST-TURN USING HAND F 17		
	A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0	17.00	1190.
9	PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 17		
	A1 B0 G1 M1 X0 IO A1	17.00	680.
10	WELDOR POSITION STINGER-BUTTON1 FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 17		
	A1 B0 G1 A1 B0 F6 A0	17.00	1530.
11	OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F 13		
	A1 B0 G1 M6 X173IO A0	13.00	23530.
12	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR		
	A1 B0 G1 M1 X0 IO A1	1.00	40.
13	WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND ASIDE PF 13 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 L16)A1 B0 P1 A0 (13)	1.00	2230.
14	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10 ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF		

542 KNU M.V. 11

2 6 (4 5 6 7)

										TIME	TIME
										MIN	SEC
15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2										1.00	3160.
FITTER MOVE CART FROM WELDTABLE TO WORKTABLE										2.00	220.
										1.00	1340.
TOTAL TMU											36720.

File Description ? WELD SQUARE TO ROUND

Output to line-printer <Y or N> ?

SHEET METAL SHAPE

4

15'- $\frac{3}{4}$ " TO 12" DIA. X 22" LG.

<u>PAID</u>	<u>76,650</u>	<u>25 MIN.</u>
<u>MARK OUT</u>	<u>15,480</u>	<u>9 MIN.</u>
<u>WELD</u>	<u>36010</u>	<u>21 MIN.</u>
<u>TOTAL TMU</u>	<u>93740</u>	<u>56 MIN.</u>

6 SHFS.

Please input file <R02R0.M01> ?

File Description ? MAKE READY SHEETMETAL FOR MARK OUT (R02R0)

Output to line-printer <Y or N> ? N

(39, 3)
FIT .wo4 R02R0 ~~0000~~
MOVE SHEETMETAL FOR MARK OUT (ROUND TO ROUND) WITH CART AT
SHEETMETAL SHOP
PER 1 4X8 SHEET (1 ROUND TO ROUND) OFG: 4 03-MAR-83
HULL 420
* DRAWING 501-062
* V2-62003
* V6-588
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS:15 3/4'DIA TO 12'DIAX22'L
* ONE 4X8 SHEET FOR ONE ROUND TO ROUND
FITTER BEGINS AT WORKTABLE

1	MOVE TEMPLATE AND SKETCH FROM TEMPLATE RACK TO WORKTABLE WITH 40 STEPS	A1 B0 G1 A67 B0 P1 A0	1.00	700.
2	MOVE SKETCH TO FITTER FROM WORKTABLE AND ASIDE	A1 B0 G1 A1 B0 F1 A0	1.00	40.
3	READ SKETCH AT WORKTABLE 59 WORDS	A0 B0 G0 A0 B0 P0 T32 A0 B0 P0 A0	1.00	320.
4	MOVE CART FROM WORKTABLE TO SHEETMETAL-STD RAGE	A1 B0 G1 A152B0 P1 A0	1.00	1950.
5	PLACE GAUGED-SHEETMETAL WITH 6 STEPS FROM SHEETMETAL-STORAGE TO CART AT SHEETMETAL-STORAGE F 2	A10 B0 G1 A1 B0 P3 A0	2.00	300.
6	MOVE CART WITH GAUGED-SHEETMETAL FROM SHEETMETAL-STORAGE TO WORKTABLE	A1 B0 G1 A152B3 P1 A0	1.00	1580.
7	PLACE 20 GAUGED-SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 8 STEPS	A1 B0 G1 A16 B0 P3 A0	1.00	210.
TOTAL TMU				4700.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help> ? T

Please input file (R02R0.M02 > ?

File Description ? MARK OUT ROUND TO ROUND.

Output to line-printer <Y or N> ? N

(39, 3)

FIT .wo4

R02R0 ~~1002~~

MARK OUT SHEETMETAL FOR ROUND TO ROUND WITH AWL AT SHEETMETAL SHOP

PER ROUND TO ROUND

OFG: 4 03-MAR-83

HULL 420

* DRAWING 501-062

* V2-62003

* V6-588

* 20 GAUGE GALV. SHEETMETAL

* DIMENSIONS:15 3/4'DIA TO A 12'DiAX22'L

* 1 TEMPLATE & 1 PIECE

FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS

A1 B0 G1 A3 B0 P6 A0 1.00 110.

2 PLACE WEIGHTS FROM WORKTABLE TO TEMPLATE ON WORKTABLE WITH 2 STEPS F 2

A1 B0 G1 A3 B0 P3 A0 2.00 160

3 MARK OUTLINE ON METAL FROM TEMPLATE 16 DIGITS USING AWL AND ASIDE PF 4 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R54)A1 B0 P1 A0 (4) 1.00 2280.

4 REPLACE WEIGHTS FROM TEMPLATE ON WORKTABLE TO WORKTABLE WITH 2 STEPS F 2

A1 B0 G1 A3 B0 P3 A0 2.00 160

5 REMOVE TEMPLATE FROM SHEETMETAL ON WORKTABLE TO WORKTABLE

A1 B0 G1 A1 B0 F1 A0 1.00 40.

6 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 16 DIGITS USING REDPEN AT WORKTABLE AND ASIDE P1 20 (7)

A1 B0 G1 A1 B0 P1 (R54)A1 B0 P1 A0 (20) 1.00 10860.

7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND HOLD PF 23 (7)

A1 B0 G1 A1 B0 P1 (R3 A0 B0 P0 A0 (23) 1.00 730.

8 FITTER MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 16 DIGITS USING BLACKPEN AND ASIDE PF 2 (7)

A1 B0 G1 A1 B0 P1 (R54)A1 B0 P1 A0 (2) 1.00 1140.

TOTAL TMU 15480.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR ROUND TO ROUND (8 FT, SHEAR)

Output to line-Printer <Y or N> ? N

(39, 3)

FIT .wo4

R02R0 ~~XXXX~~

SHEAR SHEETMETAL FOR ROUND TO ROUND (TRANSITION) WITH
SMALL SHEAR (8 FT, SHEAR) AT SHEETMETAL SHOP
PER ROUND TO ROUND

OFG: 4 01-MAR-83

HULL 420

* DRAWING 501-062

* v2-62003

* V6-588

* 20 GAUGE GALV, SHEETMETAL

* DIMENSIONS: i5 3/4'DIA TO A 12'DIAX22'L

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 3 STEPS

A1	B0	G1	A16	B0	P3	A0	1.00	210 .
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2 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR

A1	B0	G1	A67	B0	P1	A0	1.00	700 .
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3 POSITION 4X8 SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 3 STEPS F 2

A1	B0	G1	A6	B0	P6	A0	2.00	280 .
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4 PUSH FOOTPEDAL AT SMALLSHEAR CUTTING SHEETMETAL PROCESS

A1	B0	G1	M1	X6	I0	A0	1.00	90 .
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5 POSITION SHEETMETAL3 FROM SMALLSHEAR TO SMALLSHEAR
WITH 3 STEPS F 6

A1	B0	G1	A6	B0	P6	A0	6.00	840 .
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6 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL
PROCESS F 8

A1	B0	G1	M1	X6	I0	A0	3.00	720 .
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7 PLACE SHEETMETAL FROM SMALLSHEAR TO CART AT .SMALLSHEAR
WITH 16 STEPS PBEND

A1	B0	G1	A32	B3	P3	A0	1.00	400 .
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8 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE

A1	B0	G1	A67	B3	P1	A0	1.00	730 .
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TOTAL TMU 3970.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR ROUND TO ROUND WITH UNI-SHEAR

Output to line-printer <Y or N>. ? N

(39, 3)
FIT .wo4

RD2RQ

SHEAR SHEETMETAL FOR ROUND TO ROUND WITH UNI-SHEAR AT SHEETMETAL
SHUP
PER ROUND TO ROUND OFG: 4 02-MAR-83

HULL 420

* DRAWING 501-062
* v2-62003
* V6-588
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS:15 3/4'TO 12'DIAX22'L
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 6 STEPS

A1	B0	G1	A10	B0	P3	A0	1.00	150.
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2 OPERATE UNISHEAR AT WORKTABLE PROCESS PF 7 (5)

A1	B0	G1	M6	(X173)	I0	A0	(7)	1.00	12190.
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3 PLACE (ASIDE) UNISHEAR FROM WORKTABLE TO WORKTABLE

A1	B0	G1	A1	B0	P3	A0	1.00	60.
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4 MEASURE SHEETMETAL (FLANGE&TRANS, COLLARS) LENGTH AT
WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 2
(4 5 6 7)

A1	B0	G1	(A1	B0	P1	M32)A1	B0	P1	A0	(2)	1.00	720.
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5 MARK LENGTH ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
AWL AND ASIDE PF 2 (1 2 3 4 5 6 7)

(A1	B0	G1	A1	B0	P1	R3)A1	B0	P1	A0	(2)	1.00	160.
-----	----	----	----	----	----	----	-----	----	----	----	-----	------	------

6 CUT SHEETMETAL AT WORKTABLE 1 CUT USING SNIPS AT
WORKTABLE AND ASIDE PF 2 (1 2 3 4 5 6 7)

(A1	B0	G1	A1	B0	P3	C1)A1	B0	P1	A0	(2)	1.00	160.
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TOTAL TMU 13440.

Type D,EM,CT,Ew,EX,L,LD,LS,M,T,W <or H for help> ?

17,4 1 0

File Description ? FORM ROUND TO ROUND WITH ROLLER (ROLL FORMER)

Output to line-printer <Y or N> ? N

(39, 3)

FIT .wo4

RO2RO ~~SHORE~~

FORM SHEETMETAL FOR ROUND TO ROUND WITH ROLLER (ROLL FORMER) AT
SHEETMETAL SHOP

PER ROUND TO ROUND

OFG: 4 02-MAR-83

HULL 420

* DRAWING 501-062

* V2-62003

* V6-588

* 20 GAUGE GALV. SHEETMETAL

* DIMENSIONS:15 3/4'DIA TO 12'DIAX22"L

* ROLLER IS ALSO ROLL FORMER

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL , HAMMER , CLAMP , FROM WORKTABLE TO
CART AT WORKTABLE WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.,

2 MOVE CART WITH SHEETMETAL , HAMMER , CLAMP FROM
WORKTABLE TO ROLLER

A1 B0 G1 A54 B0 F1 A0 1.00 570,

3 PLACE SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 3
STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

4 FASTEN-SHEETMETAL2 (KINK END) TO ROLLER 13 STRIKES
USING HAMMER AND ASIDE PF 2 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F32)A1 B0 P1 A0 (2) 1.00 700 .

5 PLACE SHEETMETAL2 FROM ROLLER TO ROLLER

A1 B0 G1 A1 B0 P3 A0 1.00 600 .

6 FASTEN (ROLLS) NUT TO SHEETMETAL AT ROLLER 5
WRIST-STROKES USING HAND F 4

A1 B0 G1 A1 B0 P1 F16 A0 B0 P0 A0 4.00 800.

7 OPERATE ROLLER-BUTTON AT ROLLER PROCESS F 4

A1 B0 G1 M6 X96 I0 A0 4.00 4160.

8 REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH
3 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

9 PLACE SHEETMETAL (COLLAR) FROM CART AT ROLLER TO
ROLLES WITH 3 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

10 FASTEN SHEETMETAL (KINK END) TO ROLLER 4 STRIKES
USING HAMMER AND ASIDE PF (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F10)A1 B0 P1 A0 (2) 1.00 260.

11 PLACE SHEETMETAL FROM ROLLER TO ROLLER F 2

A1 B0 G1 A1 B0 P3 A0 2.00 120.

12 FASTEN (ROLLS) NUT TO SHEETMETAL AT ROLLER 5
WRIST-STROKES USING HAND F 2

A1 B0 G1 A1 B0 P1 F16 A0 B0 P0 A0 2.00 400.

13 OPERATE-ROLLER-BUTTON AT ROLLER PROCESS F 8

A1 B0 G1 M6 X96 I0 A0 3.00 8320.

14 REPLACE SHEETMETAL (COLLARS) AND HAMMER FROM ROLLER
TO CART AT ROLLER WITH 3 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

15 MOVE CART FROM ROLLER TO WELDOUT

A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 16670.

Type D,EM,CT,EW,EX,LS,LD,LS,M,T,W <or H for help> ?

34080

File Description ? TACK WELD ROUND TO ROUND

Output to line-printer <Y or N> ? N

(39, 3)

FIT .wo4

RO2RO .M06

TACK WELD SHEETMETAL FOR ROUND TO ROUND WITH TACK WELDER AT
SHEETMETAL SHOP
PER ROUND TO ROUND

OFG: 4 02-MAR-33

HULL 420

* DRAWING 501-062

* V2-62003

* V6-588

* 20 GAUGE GALV. SHEETMETAL

* DIMENSIONS: 15m3/4'DIA TO 12'DIAX22'L

* ADDITIONAL WELDING SEE MWELD

FITTER BEGINS AT WELDOUT

1 PLACE SHEETMETAL FROM CART AT WELDOUT TO WELDOUT TABLE
WITH 3 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 MOVE FLANGE FROM FLANGEAREA TO WELDOUT

A152B0 G1 A152B3 P1 A0 1.00 3090.

3 MOVE VISEGRIPS FROM WORKTABLE TO WELDOUT

A54 B3 G1 A54 B3 P1 A0 1.00 1160.

4 GRIP SHEETMETAL AT WELDOUT USING VISEGRIPS AT WELDOUT
HAD ASIDE

A1 B0 G1 A1 B0 P3 C1 A1 P0 P1 A0 1.00 90.

5 POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL2 AT
WELDOUT F 5

A1 B0 G1 A1 B0 P6 A0 5.00 450.

6 OPERATE TACKWELDER ON SHEETMETAL AT WELDOUT PROCESS F
5

A1 B0 G1 M6 x3 I0 A0 5.00 550.

7 PLACE SHEETMETAL (COLLAR) FROM WELDOUT (TABLE) TO
SHEETMETAL2 (ROUND TO ROUND) AT WELDOUT

A1 B0 G1 A1 B0 P3 A0 1.00 60.

8 OPERATE TACKWELDER ON SHEETMETAL2 AT WELDOUT PROCESS F
8

A1 B0 G1 M6 X3 I0 A0 S100 880.

9 POSITION SHEETMETAL (FLANGE COLLAR) FROM WELDOUT (TABLE)
TO FLANGE AT WELDOUT

A1 B0 G1 A1 B0 P6 A0 1.00 90.

10 POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL2 AT
WELDOUT

A1 B0 G1 A1 B0 P6 A0 1.00 90.

11 OPERATE TACKWELDER ON SHEETMETAL2 AT WELDOUT PROCESS F
8

A1 B0 G1 M6 X3 I0 A0 3.00 880.

12 REPLACE SHEETMETAL , VISEGRIPS FROM WELDOUT TO CART AT
WELDOUT

A1 B0 G1 A1 B0 P3 A0 1.00 60.

13 MOVE CART [VISEGRIPS AND HAMMER] FROM WELDOUT TO
WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

14 PLACE CART [VISEGRIPS AND HAMMEER] FROM CART AT
WORKTABLE TO WORKTABLE

P02R0 M06

A1 B0 G1 A1 B0 P3 A0 1.00 50.

TOTAL TMU 8170.

Ⓒ type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

42,250

File Description ? WELD ROUND TO ROUND

Output to line-printer <Y or N> ? N

(39, 3)
WELD • W01 R02RO .M07
WELD ROUND TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP
WELDING BOOTH
PER ROUND TO ROUND OFG: 4 21-JUL-83
WELDING.NASSCO SHEETMETAL SHAPE 4
* HULL 420
* DRAWING 501-062
* V2-62003
* V6-588
* 20 GAUGE GALV. SHEETMETAL
* 15 3/4 DIAMETER TO 12' DIAMETER X 22'LG
* WELDOR PERFORMS WORK
* FITTER TRANSPORT SHEETMETAL ASSEMBLY
FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FITTER MOUE CART FROM-WORKTABLE TO WELDTABLE		
	A1 B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 B0 G1 M1 X0 IO A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M1 X0 IO A1	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND		
	AL B0 G1 A1 B0 P1 F3 A0 B0 P0 A0	1.00	70.
7	WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M3 X0 IO A1	1.00	60.
3	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE		
	A3 B3 G1 A1 B0 P6 A0	1.00	140.
9	WELDOR PUSH ANTI-SPATTER2 SPRAY CAM ROCESS F 4		
	A1 B0 G1 M1 X10 IO A0	4.00	520.
10	WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 7		
	A1 B0 G1 A1 B0 P6 A0	7.00	630.
11	PULL WELDHOO FROM UP AT WELDOR TO DOWN AT WELDOR F 4		
	A1 B0 G1 M1 X0 IO A1	4.00	160.
12	WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE *M(H PARTIAL BEND F 7		
	A1 B0 G11 A1 6 P6 A0	7.00	1050.
13	OPERATE WELD STINGER-BUTTON1 PROCESS F 23		
	A1 B0 G1 M6 X81 IO A0	28.00	24920.
14	PUSH WELDHOO FROM DOWN AT WELDOR TO UP AT WELDOR F 4		
	A1 B0 G1 M1 X0 IO A1	4.00	160.

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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help) ? }i
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SHEET METAL SHAPE

4

30" DIA. to 24" DIA X 40" LG ROUND to ROUND TRANSITION

FAB	70,340	42 MIN.
MARK out	12,260	7 MIN
WELD	65,360	39 MIN.
TOTAL TMU.	147,960	89 MIN

5 SHTS.

File Description ? MARK OUT ROUND TO ROUND TRANSITION

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

R02R0 ~~1020~~



PER ROUND TO ROUND

MARK OUT ROUND TO ROUND TRANSITION WITH AWL AT SHEETMETAL SHOP
OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 4

* 16 GAUGE GALV, SHEETMETAL

* 30'DIAMETER TO 24'DIAMETER X 40'L

* MARK OUT TRANSITION WITH TEMPLATE

* MARK OUT COLLARS WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

- 1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.
- 2 PLACE WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE
WITH 3 STEPS F 3
A1 B0 G1 A6 B0 P3 A0 3.00 330.
- 3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4) 1.00 760.
- 4 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE
WITH 3 STEPS F 3
A1 B0 G1 A6 B0 P3 A0 3.00 330.
- 5 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.
- 6 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING BLACKPEN AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4) 1.00 760.
- 7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 23 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 F1 A0 (23) 1.00 1190.
- 8 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)1 1.00 2640.
- 9 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 M32)A1 B0 F1 A0 (4) 1.00 1400,
- 10 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
A1 B0 G1 (A1 B0 F1 R3)A1 B0 P1 A0 (6) 1.00 340.
- 11 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 4
A1 B0 G1 A3 B0 P6 A0 4.00 440.
- 12 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4) 1.00 760.
- 13 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)

	A1 B0 G1 (A1 B0 P1 R16)	A1 B0 P1 A0 (4)	1.00	760.
14	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 14 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R3)	A1 B0 P1 A0 (14)	1.00	740.
MARK	IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R3)	A1 B0 P1 A0 (12)	1.00	640.
16	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2			
	A1 B0 G1 A6 B0 P3 A0		2.00	220.
17	MOUE CART FROM WORKTABLE TO SMALLSHEAR			
	A1 B0 G1 A67 B0 P1 A0		1.00	700.
	TOTAL TMU.			12260.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR ROUND TO ROUND TRANSITION

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 R02RO .M21

SHEAR SHEETMETAL FOR ROUND TO ROUND TRANSITION WITH

SMALL 8FT. SHEAR AT SHEETMETAL SHOP

PER ROUND TO ROUND

OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 4

* 16 GAUGE GALV. SHEETMETAL

* 30'DIAMETER TO 24'DIAMETER X 40'L

* SHEAR 1 1/2' STRIPS FOR COLLARS

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2

A1 B0 G1 A6 B0 p6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

A1 B0 G1 M1 X6 IO A0 1.00 90.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
3 STEPS F 9

A1 B0 G1 A6 B0 p6 A0 9.00 1260.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 9

A1 B0 G1 M1 X6 IO A0 9.00 810.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 10 STEPS F 2

A1 B0 G1 A16 B0 P3 A0 2.00 420.

6 MOUE CART FROM SMALLSHEAR TO WORKTABLE

A1 B0 G1 A67 B3 F1 A0 1.00 730.

TOTAL TMU 3590,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT RADIUS FOR ROUND TO ROUND TRANSITION

output to line-printer <Y or N> ? N

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( 39, 1)
FIT  • W11                                R02RO .M22
      CUT RADIUS FOR ROUND TO ROUND TRANSITION WITH UNI-SHEAR AT
SHEETMETAL SHOP
PER ROUND TO ROUND                        OFG: 4   26-MAY-83
      NASSCO SHEETMETAL SHAPE 4
      * 16 GAUGE GALV. SHEETMETAL
      * 30'DIAMETER TO 24'DIAMETER X 40'L
      FITTER BEGINS AT WORKTABLE

      POSITION SHEETMETAL FROM CART AT WORKTABLE TO
      WORKTABLE WITH 4 STEPS F 2
                A1  B0  G1  A6  B0  P6  A0          2.00      280.
2 MOUE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
                A96 B0  G1  A96 B3  P1  A0          1.00      1970.
3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 14
                A1  B0  G1  M6  X173I0 A0          14.00     25340.
4 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3
  STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5
  6 7 )
                A1  B0  G1  (A1  B0  PO  F6  )A1 B0 P1 A0 (4)  1.00      320.
5 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
  WITH 4 STEPS F 2
                A1  B0  G1  A6  B0  P3  A0          2.00      220.
6 MOUE CART FROM WORKTABLE TO ROLLER
                A1  B0  G1  A54 B0  F1  A0          1.00      570.

                                TOTAL TMU          28700.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

33290

File Description ? FORM RADIUS FOR ROUND TO ROUND TRANSITION

Output to line-Printer <y or N> ? N

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( 39, 1)
1  FIT .W11 R02RO .M23
    FORM RADIUS FOR ROUND TO ROUND TRANSITION WITH
    ROLLER (ROLL FORMER) AT SHEETMETAL SHOP
    PER ROUND TO ROUND OFG: 4 26-MAY -83
    NASSCO SHEETMETAL SHAPE 4
    * 16 GAUGE GALV. SHEETMETAL
    * 30'DIAMETER TO 24'DIAMETER X 40'L
    * ROLL-UP TRANSITION AND COLLARS
    FITTER BEGINS AT ROLLER

1  PLACE SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4
    STEPS F 3
    A1 B0 G1 A6 B0 P3 A0 3.00 330.
2  MOUE MALLET FROM TOOLROOM TO ROLLER
    A54 B0 G1 A54 B0 P1 A0 1.00 1100.
3  FASTEN SHEETMETAL [KINK END] AT ROLLER TO ROLLER 1
    STRIKE USING MALLET AT ROLLER AND ASIDE PF 30 ( 4 5 6
    7 )
    A1 B0 G1 (A1 B0 PO F3 )A1 P0 P1 A0 (30) 1.00 1240.
4  PLACE SHEETMETAL FROM ROLLER TO ROLLER WITH 2 STEPS F
    3
    A1 B0 G1 A3 B0 P3 A0 3.00 240.
5  FASTEN NUT [ROLLS] TO SHEETMETAL AT WORKTABLE 3
    WRIST-STROKES USING HAND WITH 2 STEPS F 10
    A1 B0 G1 A54 B3 F1 F10 A0 B0 P0 A0 10.00 7000.
6  OPERATE ROLLER-BUTTON PROCESS F 14
    A54 B0 G1 M6 X96 IO A0 14.00 21980.
7  REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH
    4 STEPS
    A1 B0 G1 A6 B0 P3 A0 1.00 110.
8  MOVE CART FROM ROLLER TO WELDOUT
    A1 B0 G1 A67 B3 P1 A0 1.00 730 .

TOTAL TMU 32730 .

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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

65,020

File Description ? TACK ROUND TO ROUND TRANSITION

O u t p u t line-printer <Y or N> ? N

(39, 1)

FIT .W11

R02RO .M24

TACK ROUND TO ROUND TRANSITION WITH TACK-WELDER AT SHEETMETAL



PER ROUND TO ROUND

OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 4

* 16 GAUGE GALV. SHEETMETAL

* 30'DIAMETER TO 24'DIAMETER X 40'L

* TACK WELD COLLAR TO TRANSITION

* COMPLETE IN WELD BOOTH AREA

* SEE MWELD..SEE R02RO.M25

FITTER BEGINS AT WELDOUT

1 PLACE SHEETMETAL2 FROM CART AT WELDOUT TO WELDOUT WITH
4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 MOUE UISEGRIPS FROM WORKTABLE TO WELDOUT

A54 B3 G1 A54 B3 P1 A0 1.00 1160.

3 POSITION SHEETMETAL2 FROM WELDOUT TO SHEETMETAL AT
WELDOUT WITH 2 STEPS F 3

A1 B0 G1 A3 B0 P6 A0 3.00 330.

4 GRIP SHEETMETAL TO SHEETMETAL AT WELDOUT USING
VISEGRIPS AT WELDOUT AND ASIDE PF 14 (4 5 6 7)

AL B0 G1 (A1 B0 P3 C1)A1 B0 F1 A0 (14) 1.00 740.

5 POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL AT
WELDOUT F 24

A1 B0 G1 A1 B0 P6 A0 24.00 2160.

6 REPLACE SHEETMETAL FROM WELDOUT TO CART AT WELDOUT
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

7 MOVE CART FROM WELDOUT TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 5320.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

70,340

File Description ? WELD ROUND TO ROUND

Output to line-Printer <Y or N> ? N

(39, 3)

WELD .W01

R02RO .M25

WELD ROUND TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP

WELDING BOOTH

PER ROUND TO ROUND

OFG; 4 21-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 4

* 16 GAUGE GALV. SHEETMETAL

* 30' DIAMETER TO 24' DIAMETER X 40'LG

* WELDOR PERFORMS WORK

* FITTER TRANSPORT SHEETMETAL

* WELD SHEETMETAL AT WELD AREA BOOTH

FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FITTER MOVE CART FROM WORKTABLE TO WELDTABLE		
	A1 B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A3 B0 G1 M1 X0 IO A1	1.00	60.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINE TO ON AT WELDMACHINES		
	A1 B0 G1 M1 X0 IO A1	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND		
	A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0	1.00	70.
7	WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M3 X0 IO A1	1.00	60.
8	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4		
	A3 B3 G1 A1 B0 P6 A0	4.00	560.
9	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4		
	A1 B0 G1 M1 X10 IO A0	4.00	520.
10	WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 15		
	A1 B0 G1 A1 B0 P6 A0	15.00	1350.
11	PULL WELDHOO FROM UP AT WELDOR TO DOWN AT WELDOR F 6		
	A1 B0 G1 M1 X0 IO A1	6.00	240.
12	WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 15		
	A1 B0 G1 A1 B6 P6 A0	15.00	2250.
13	OPERATE WELD STINGER-BUTTON1 PROCESS F 56		
	A1 B0 G1 M6 X81 IO A0	56.00	49840.
14	PUSH WELDHOO FROM DOWN AT WELDOR TO UP AT WELDOR F 6		
	A1 B0 G1 M1 X0 IO A1	6.00	240.
15	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10		
	ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF 5 6 (4 5 6 7)		

R0220 M25

	A1	B0	G1	(A1	B0	P1	C10	)A1	B0	P1	A0	(56)	1.00	6760.
16	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2														
	A1	B0	G1	A6	B0	P3	A0						2.00	220.	
17	FITTER MOUE CART FROM WELDTABLE TO WORKTABLE														
	A1	B0	G1	A131	B0	P1	A0						1.00	1340.	
													TOTAL	TMU	65360.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

SHEET METAL SHAPE # 4

12" DIA to 19" DIA. X 30" LG ROUND to ROUND TRANSITION

FAB.	35,440	21 MIN.
MARK out	14,770	9 MIN.
WELD.	69410	41 MIN
TOTAL TMO.	119620	71. MIN

File Description? MARK OUT ROUND TO ROUND TRANSITION

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

R02R0

MARK OUT ROUND TO ROUND TRANSITION WITH AWL AT SHEETMETAL SHOP
PER ROUND TO ROUND OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 4

* 11 GAUGE GALV. SHEETMETAL

* 12'DIAMETER TO 19'DIAMETER X 30'L

* MARK OUT TRANSITION USING TEMPLATE

* MARK OUT COLLARS WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	PLACE WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 3	A1 B0 G1 A6 B0 P3 A0	3.00	330.
3	MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R16 >A1 B0 P1 A0 (4)	1.00	760.
4	REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 3	A1 B0 G1 A6 B0 P3 A0	3.00	330.
5	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4)	1.00	760.
7	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 30 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (30)	1.00	1540.
8	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	2640.
9	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (4)	1.00	1400.
10	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 F1 A0 (6)	1.00	340.
11	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 4	A1 B0 G1 A6 B0 P6 A0	4.00	560.
12	MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4)	1.00	760.
13	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)			

	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4)	1.00	760.
14	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)		
	A1 B0 G1 (A1 HO P1 R3)A1 B0 P1 A0 (12)	1.00	640.
15	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	2640.
16	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
17	MOUE CART FROM WORKTABLE TO 14FT.SHEAR		
	A1 B0 G1 A81 B0 P1 A0	1.00	840.
	TOTAL TMU		14770.

; Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR ROUND TO ROUND TRANSITION

Output to line-printer <Y or N> ? N

(39, 1)

FIT 0 W11

R02RO

SHEAR SHEETMETAL FOR ROUND TO ROUND TRANSITION WITH 14FT, SHEAR
AT SHEETMETAL SHOP
PER ROUND TO ROUND

OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 4

* 11 GAUGE GALV. SHEETMETAL

* 12'DIAMETER TO 10 19'DIAMETER X 30'L

FITTER BEGINS AT 14FT,SHEAR

1	POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH 14FT.SHEAR-FOOTPEDAL PROCESS	A1 B0 G1 M1 X3 IO A0	1.00	60.
3	POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR WITH 2 STEPS F 6	A1 B0 G1 A3 B0 P6 A0	6.00	660.
4	PUSH 14FT,SHEAR-FOOTPEDAL PROCESS F 9	A1 B0 G1 M1 X3 IO A0	9.00	540.
5	REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT 14FT.SHEAR WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOUE CART FROM 14FT SHEAR TO WORKTABLE	A1 B0 G1 A81 B3 P1 A0	1.00	870.
TOTAL TMU				2520.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Descripdition ? CUT RADIUSSES FOR ROUND TO ROUND TRANSITION

Outut to line-printer <Y or N> ? N

(39t, 1)
FIT .Wll R02RO ~~Y~~
CUT RADIUSSES FOR ROUND TO ROUND ~~TRANSITION~~ WITH SABER-SAW AT
SHEETMETAL SHOP
PER ROUND TO ROUND OFG: 4 26-HAY-83
NASSCO SHEETMETAL SHAPE 4
* 11 GAUGE GALV, SHEETMETAL
* 12'DIAMETER TO 19'DIAMETER X 30'L
FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL FROM CART AT WORKTABLE TO
WORKTABLE WITH 4 STEPS F 2

A1	BO	G1	A6	BO	P6	A0	2.00	280.
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2 MOVE SABER-SAW2 FROM TOOLROOM TO WORKTABLE

A96	HO	G1	A96	B3	P1	A0	1.00	1970.
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3 OPERATE SABER-SAW AT WORKTABLE PROCESS F 7

A1	HO	G1	M6	X67	IO	A0	7.00	5250.
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4 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2

A1	Bo	G1	A6	BO	P3	A0	2.00	220.
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5 MOUE CART FROM WORKTABLE TO ROLLER

A1	BO	G1	A54	BO	P1	A0	1.00	570.
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TOTAL	TMU	8290.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

10810

File Description ? FORM RADIUS FOR ROUND TO ROUND TRANSITION

Output to line-printer <Y or N> ? N

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( 39, 1)
FIT .W11          R02R0
FORM RADIUS FOR ROUND TO : R02R0 TRANSITION WITH
ROLLER (ROLL FORMER) AT SHEETMETAL SHOP
PER ROUND TO ROUND                                OFG: 4 26-MAY-83
NASSCO SHEETMETAL SHAPE 4
* 11 GAUGE GALV. SHEETMETAL
* 12'DIAMETER TO 19'DIAMETER X 30'L
* ROLL-UP TRANSITION AND COLLAR
* KINK END FOR EASE OF OPERATION
FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL2 FROM CART AT ROLLER TO ROLLER WITH 4
  STEPS F 3
          A1 B0 G1  A6 B0 P3 A0          3.00      330.
2 MOUE MALLET FROM TOOLROOM TO ROLLER
          A54 B0 G1  A54 B0 P1 A0          1.00      1100.
3 FASTEN SHEETMETAL2 [KINK END] TO ROLLER 1 STRIKE USING
  MALLET AT ROLLER AND ASIDE PF 30 (1 4 5 6 7 )
          A1 B0 G1  (A1 B0 PO F3 )A1 B0 P1 A0 (30)  1.00      1240.
4 PLACE SHEETMETAL2 FROM ROLLER TO ROLLER WITH 3 STEPS F
  3
          A1 B0 G1  A6 B0 P3 A0          3.00      330.
5 FASTEN NUT [ROLLS] TO SHEETMETAL2 AT ROLLER 3
  WRIST-STROKES USING HAND WITH 2 STEPS F 14
          A1 B0 G1  A1 B0 P1 F10 A0 B0 P0 A0        14.00      1960.
6 OPERATE ROLLER-BUTTON PROCESS F 18
          A1 B0 G1  M6 X96 IO A0          18.00      18720.
7 REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH
  4 STEPS F 2
          A1 B0 G1  A6 B0 P3 A0          2.00      220 .
8 MOUE CART FROM ROLLER TO WELDOUT
          A1 B0 61  A67 B3 P1 A0          1.00      730 .

TOTAL TMU          24630
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

- 35,440

Please input file (R02R0.M44 > ?

File Description ? WELD ROUND TO ROUND

Output to line-printer <Y or N> ? N

(39, 101)

WELD .W01 R02R0 .M44
WELD ROUND TO ROUND WITH ARC (STICK) WELDER A-f SHEETMETAL SHOP
WELDING BOOTH
PER ROUND TO ROUND OFG: 4 20-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 4

* 11 GAUGE GALV. SHEETMETAL
* 12' DIAMETER TO 19' DIAMETER X 30'L
* WELDING DONE IN WELD BOOTH AREA
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FITTER MOUE CART FROM WORKTABLE TO WELDTABLE		
	A1 B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
f-1 4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 B0 G1 M1 X0 IO A32	1.00	370.
5	WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M3 X0 IO A1	1.00	60.
6	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 6		
	A3 B3 G1 A1 B0 P6 A0	6.00	840.
7	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 6		
	A1 B0 G1 M1 X10 IO A0	6.00	780.
8	WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1 WRIST-TURN USING HAND F 35		
	A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0	35.00	2450.
9	PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 35		
	A1 B0 G1 M1 X0 IO A1	35.00	1400,
10	WELDOR POSITION STINGER1 FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 35		
	A1 B0 G1 A1 B0 P6 A0	35.00	3150.
11	WELDOR OPERATE WELD STINGER1 AT WELDTABLE PTIME 65 S F 26		
	A1 B0 G1 M6 X173IO A0	26.00	470.60
12	PUSH WELDHOOD FROM DOWN A1- WELDOR TO UP A-f WELDOR F 35		
	A1 B0 G1 M1 X0 IO A1	35.00	1400.
13	WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY A-f WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND ASIDE PF 13 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 L16)A1 B0 F1 A0 (13)	1.00	2250.
14	WELDOR DEBURR WELDED ASSEMBLY A1- WELDTABLE 10		

ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF

5 2 (4 5 6 7)

	A1	B0	G1	(A1	B0	P1	C10	)A1	B0	P1	A0	(52)	1.00	6280.
15	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2													
			A1	B0	G1	A6	B0	F3	A0				2.00	220.
16	FITTER MOVE CART FROM WELDTABLE TO WORKTABLE													
			A1	B0	G1	A131	B0	P1	A0				1.00	1340 RM \$\$\$

69410.

File Description ? WELD ROUND TO ROUND

Output to line-printer <Y or N> ?

Total Tmu - 69410

SHEET METAL SHAPE

4

6" DIA. X 18" LG. ROUND DUCT SECTION

FAB	27,100	16 MIN.
MARK OUT	6,140	4 MIN.
TOTAL	33,240	20 MIN.

File Description ? MARK OUT ROUND DUCT SECTION

Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11 RODUCT .M10
 MARK OUT ROUND DUCT SECTION WITH AWL AT SHEETMETAL SHOP
 PER ROUND DUCT OFG: 4 31-MAY-83
 NASSCO SHEETMETAL ROUND DUCT SECTION
 * 20 GAUGE GALV. SHEETMETAL
 * 6' DIAMETER ROUND DUCT 18' LG
 * MARK OUT WITHOUT TEMPLATE
 FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 M32)A1 B0 F1 A0 (4)	1.00	1400.
2	HARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE LAND ASIDE PF 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 F1 R3)A1 B0 F1 A0 (4)	1.00	240.
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2		
	A1 B0 G1 A3 B0 P6 A0	2.00	220.
4	MARK LINES FORM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 F1 A0 (2)	1000	400.
5	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2		
	A1 B0 G1 A3 B0 F6 A0	2.00	220.
6	MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)		
	A1 B0 G1 (A1 B0 F1 R6)A1 B0 P1 A0 (2)	1.00	200.
7	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7) .		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 F1 A0 (6)	1.00	1120.
8	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (3)	1.00	190.
9	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 (4 5 6 7)		
	A1 B0 G1 (A1 B0 F1 R3)A1 B0 F1 A0 (26)	1.00	1340.
10	PLACE SHEETMETAL2 FROM WORKTABLE TO CAART AT WORKTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
11	MOUE CART FROM WORKTABLE TO SMALLSHEAR		
	A1 B0 G1 A67 B0 F1 A0	1.00	700.
TOTAL TMU			6140.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

6 SH45

File Description ? SHEAR SHEETMETAL FOR ROUND DUCT SECTION

Output to line-Printer <Y or N> ? N

(39, 11
FIT .W11 RODUCT .M11
SHEAR SHEETMETAL FOR ROUND DUCT SECTION WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 31-MAY-83
NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV. SHEETMETAL
* 6' DIAMETER ROUND DUCT 18'LG
FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS	A1 B0 G1 M1 X6 IO A0	1.00	90.
3	POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH 2 STEPS	A1 B0 G1 A3 B0 P6 A0	1.00	110.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS	A1 B0 G1 M1 X6 IO A0	1.00	90.
5	REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH -4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
	MOUE CART FROM SMALLSHEAR TO WORKTABLE	A1 B0 G1 A67 B3 F1 A0	1.00	730.
			TOTAL TMU	1410.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? CUT CORNERS FOR ROUND DUCT SECTION

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 RODUCT.M12
 CUT CORNERS FOR ROUND DUCT SECTION WITH SNIPS AT SHEETMETAL SHOP
 PER ROUND DUCT OFG: 4 31-MAY-83
 NASSCO SHEETMETAL ROUND DUCT SECTION
 * 20 GAUGE GALV. SHEETMETAL
 * 6'DIAMETER ROUND DUCT 18' LG
 FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2	-A1 B0 G1 A1 B0 P6 A0	2.00	180,
3	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C3)A1 B0 F1 A0 (2)	1.00	180,
4	FASTEN FLATTEN SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER-AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (2)	1.00.	180,
5	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	A1 B0 G1 A'6 B0 P3 A0	1.00	110.
6	MOUE CART FROM WORKTABLE TO LAPOUT	A1 B0 G1 A54 B0 P1 A0	1.00	570.
TOTAL TMU				1330.

Type D,EM, CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?.

2-740

File Description ? FORM LAP SEAM ON ROUND DUCT

Output to line-Printer <Y or N> ? N

(39., 1)

FIT ,W11

RODUCT.M13

FORM LAP SEAM ON ROUND DUCT WITH LAPOUT (ROTARY MACHINE) AT
SHEETMETAL SHOP

PER ROUND DUCT

DFG: 4 31-MAY-83

NASSCO SHEETMETAL ROUND DUCT SECTION

* 20 GAUGE GALV, SHEETMETAL

* 6' DIAMETER ROUND DUCT 18'LG

* FORM LAP SEAM AND LAPOUT END FOR FLANGE

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS

A1	B0	G1	A6	BO	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

2 PUSH LAPOUT-SWITCH PROCESS

A1	B0	G1	M1	X16	IO	A0	1.00	190.
----	----	----	----	-----	----	----	------	------

3 POSITION SHEETMETAL FROM LAPOUT TO LAPOUT WITH 2 STEPS

A1	BO	G1	A3	BO	P6	A0	1.00	110.
----	----	----	----	----	----	----	------	------

4 PUSH LAPOUT-SWITCH PROCESS

A1	BO	G1	M1	X16	IO	A0	1.00	190 *
----	----	----	----	-----	----	----	------	-------

5 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS

A1	BO	G1	A6	BO	P3	A0	1.00	110,
----	----	----	----	----	----	----	------	------

6 MOVE CART FROM LAPOUT TO ROLLER

A1	BO	G1	A10	BO	P1	A0	1.00	130,
----	----	----	-----	----	----	----	------	------

TOTAL TMU 840.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?'

3580

 Output to line-printer <Y or N> ? N

1	MOVE Mallet FROM TOOLROOM TO ROLLER	AS4 BO G1 AS4 BO P1 A0	1.00	1100.
2	POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS	A1 BO G1 A6 BO P6 A0	1.00	140.
3	FASTEN [KINK] SHEETMETAL AT ROLLER 1 STRIKE USING Mallet AT ROLLER AND ASIDE PF 40 (4 5 6 7)	A1 BO G1 (A1 BO PO F3)A1 BO P1 A0 (40)	1.00	1640.
4	POSITION SHEETMETAL FROM ROLLER TO ROLLER F 4	A1 BO G1 A1 BO P6 A0	4.00	360.
5	FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3 WRIST-TURNS USING HAND F 8	A1 BO G1 A1 BO P1 F6 A0 BO PO A0	8.00	800.
6	PUSH ROLLER-BUTTON PROCESS F 8	A1 BO G1 M1 X96 IO AO,	8.00	7920.
7	REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH 4 STEPS	A1 BO G1 A6 BO P3 A0	1.00	110.
8	MOVE CART FROM ROLLER TO WORKTABLE	A1 BO G1 A54 B3 F1 A0	1.00	600.
TOTAL TMU				12670.

16,250

File Description ? RIVET ROUND DUCT SECTION

Output to line-printer <Y or N> ? N

(39, 1)

FIT • W11

RODUCT-M15

RIVET ROUND DUCT SECTION WITH RIVET GUN AT SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 31-MAY-83

NASSCO SHEETMETAL ROUND DUCT SECTION

* 20 GAUGE GALV, SHEETMETAL

* 6' DIAMETER ROUND DUCT 18' LG

* SEAL RIVET HEADS AND SEAM WITH SEALANT

FITTER BEGINS AT WORKTABLE

- 1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS

A1 BO G1 A6 BO P3 A0 1.00 110.

- 2 PLACE RIVET-HOLE-GUIDEY FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE

A1 BO G1 A1 BO P3 A0 1.00 60.

- 3 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1
DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 14 (4
5 6 7)

A1 BO G1 (A1 BO P1 R3)A1 BO F1 A0 (14) 1.00 740.

- 4 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING
VISEGRIPS AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)

A1 BO G1 (A1 BO P3 C1)A1 BO F1 A0 (2) 1.00 140.

- () 5 FASTEN 5-32DRILL-BIT FROM WORKTABLE TO DRILLMOTOR AT
WORKTABLE 3 WRIST-TURNS USING,CHUCKKEY AT WORKTABLE
AND ASIDE

A1 BO GI. A1 BO P3 F6 A1 BO P1 A0 1.00 140.

- 6 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 14

A1 BO GL A1 BO P6 A0 14.00 1260.

- 7 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 14

A1 BO G1 M6 X6 IO A0 14.00 1960.

- 8 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 14

A1 BO G1 A1 BO P6 A0 14.00 1260.

- 9 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 14

A1 BO G1 A1 BO P6 A0 14.00 1260.

- 10 OPERATE RIVETGUN AT WORKTABLE PROCESS F 14

A1 BO G1 M6 X3 IO A0 14.00 1540.

- 11 POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 16

A1 BO G1 A1 BO P6 A0 16.00 1440,

- 12 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING
CAULKINGGUN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)

A1 BO G1 (A1 BO P3 C1)A1 BO P1 A0 (16) 1.00 8.40.

- 13 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

A0 BO GO A0 BO P0 T10 A0 BO P0 A0 1.00 100,

TOTAL TMU 10850.

27/00

SHEET METAL SHAPE

4

8" DIA. X 18" LG ROUND DUCT SECTION

FAB	28500	17 MIN
MARK-OUT	7700	5
TOTAL TMU.	36200	22 MIN

6 SHK5.

File Description ? MARK OUT ROUND DUCT

Output to line-printer <Y or N> ? N


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( 39, 1)
FIT .W11                                R O D U C T -
MARK OUT ROUND DUCT WITH AWL AT SHEETMETAL SHOP
PER ROUND DUCT                          OFG: 4   01-JUN-83
    NASSCO SHEETMETAL SHAPE 4
    * 20 GAUGE GALV, SHEETMETAL
    * 8' DIAMETER ROUND DUCT 18' LG
    * MARK OUT WITHOUT TEMPLATE
    FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
  STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 M32 )A1 B0 F1 A0 (4) 1.00 1400.
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) 1.00' 240.
3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 2 STEPS F 2
    A1 B0 G1 A3 B0 P6 A0 2.00 220.
4 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
  5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6
  7 )
    A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2) 1.00 400.
5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
  AT WORKTABLE WITH 3 STEPS F 2
    A1 B0 G1 A6 B0 P6 A0 2.00 280.
6 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2
  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7
  )
    A1 B0 G1 (A1 B0 F1 R6 )A1 R0 P1 A0 (2) 1.00 200.
7 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
  USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
    A1 B0 G1 (A1 80 F1 .R16 )A1 B0 F1 A0 (6) 1.00 1120.
8 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
  ASIDE PF 33 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (33) 1.00 1690.
9 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 ( 4 5 6 7
  )
    A1 B0 G1 (A1 B0 P1 R3 )A1 HO P1 A0 (26) 1.00 1340.
10 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
    WITH 4 STEPS
    A1 B0 G1 A6 B0 P3 A0 1.00 110.
11 MOUE CART' FROM WORKTABLE TO SMALLSHEAR
    A1 B0 G1 A67 B0 P1 A0 1.00 7.00 .

TOTAL TMU 7700.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT CORNERS FOR ROUND DUCT

 Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

RODUCT ~~XXXXXXXXXX~~

CUT CORNERS FOR ROUND DUCT SECTION WITH SNIPS AT SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 01-JUN-83

NASSCO SHEETMETAL SHAPE 4

* 20 GAUGE GALV. SHEETMETAL

* 8' DIAMETER ROUND. DUCT 18' LG

FITTER BEGINS AT WORKTABLE

- 1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

- 2 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS P 2

A1 B0 G1 A3 B0 P6 A0 2.00 220.

- 3 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
SNIPS AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 C3)A1 B0 P1 A0 (2) 1.00 180.

- 4 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3
STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 2 (4 5
6 7)

A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (2) 1.00 180.

- 5 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

- 6 MOUE CART FROM WORKTABLE TO LAPOUT

A1 B0 G1 AS4 B0 P1 A0 1.00 570.

TOTAL TMU 1370.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H far help> ?

2810

File Description ? FORM LAP SEAM ON ROUND DUCT

Output to line-printer <Y or N> ? N

(39, 1)-
FIT .W11

RODUCT ~~XXXXXX~~

FORM LAP SEAM ON 'ROUND DUCT SECTION WITH LAPOUT (ROTARY MACHINE)
AT SHEETMETAL SHOP

PER ROUND DUCT

OFG: 4 01-JUN-83

NASSCO SHEETMETAL SHAPE 4
* 20 GAUGE GALV. SHEETMETAL
* 8' DIAMETER ROUND DUCT 18' LG
* FORM LAP RIVET SEAM
* LAP OUT END FLANGE
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 PUSH LAPOUT-SWITCH PROCESS

A1 B0 G1 M1 X16 IO A0 1.00 190.

3 POSITION SHEETMETAL FROM LAPOUT TO LAPOUT WITH 3 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

4 PUSH LAPOUT-SWITCH PROCESS

A1 B0 G1 M1 X16 IO A0 1.00 190.

5 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

6. MOUE CART FROM LAPOUT TO ROLLER

A1 B0 G1 A10 B0 P1 A0 1.00 130.

TOTAL TMU 870.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H far help> ?

3680

File Description ? FORM ROUND DIAMETER FOR ROUND DUCT

Output to line-printer <Y or N> ? Y

```
( 39, 1)
FIT      .W11                      R O D U C T
      FORM ROUND DIAMETER FOR ROUND DUCT SECTION WITH
      ROLLER (ROLL FORMER) .AT SHEETMETAL SHOP
      PER ROUND DUCT                      OFG: 4 01-JUN-83
      NASSCO SHEETMETAL SHAPE 4
      * 20 GAUGE GALV SHEETMETAL
      * 8' DIAMETER ROUND DUCT 18' LG
      FITTER BEGINS AT ROLLER

1 MOVE Mallet FROM TOOLROOM TO ROLLER
      A54 B0 G1  A54 B0 P1 A0          1.00      1100.
2 POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH
  4 STEP
      A1 B0 G1'  A6 B0 P6 A0          1.00      140.
3 FASTEN [KINKI] SHEETMETAL2AT ROLLER 2 STRIKES USING
  Mallet AT ROLLER AND ASIDE PF 20 ( 4 5 6 7 )
      A1 B0 G1  (A1 B0 P0 F6  )A1 B0 P1 A0 (20)  1.00      1440.
4 POSITION SHEETMETAL FROM ROLLER TO ROLLER WITH 3 STEPS
  F 4
      A1. B0 G1  A6 B0 P6 A0          4.00      560.
5 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3
  WRIST-TURNS USING HAND F 8
      A1 B0 G1- A1 B0 P1 F6 A0 B0 P0 A0          8.00      800.
6 PUSH ROLLER-BUTTON PROCESS F 8
      A1 B0 G1  M1 X96 IO A0          8.00      7920.
7 REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH
  4 STEPS
      A1 B0 G1  A6 B0 P3 A0          1.00      110.
8 MOUE CART FROM ROLLER TO WORKTABLE
      A1 B0 G1  A54 B3 P1 A0          1.00      600.

TOTAL TMU                      12670.
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16350

File Description ? RIVET ROUND DUCT SECTION

Output to line-printer <Y or N> ? Y

(39, 1)

FIT .W11

RODUCT ~~XXXXXXXXXX~~

RIVET ROUND DUCT SECTION WITH RIVET GUN AT SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 01-JUN-83

NASSCO SHEETMETAL SHAPE 4

* 20 GAUGE GALV. SHEETMETAL

* 8' DIAMETER ROUND DUCT 18' LG

* SEAL RIVET HEADS AND SEAM WITH SEALANT

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS									
		A1	B0	G1	A6	B0	P3	A0	1.00 110.	
2	PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE									
		A1	B0	G1	A1	B0	P3	A0	1.00 60.	
3	MARK SHEETMETAL FROM RIVET-HOLE-GUIDE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF -14 (4 5 6 7)									
		A1	B0	G1	(A1	B0	P1	R3)A1	B0 P1 A0 (14)	1.00 740.
4	GRIP SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)									
		A1	B0	G1	(A1	B0	P3	C1)A1	B0 P1 A0 (2)	1.00 140.
5	FASTEN 5-32DRILL-BIT PTO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE									
		A1	B0	G1	A1	B0	P3	F6 A1	B0 P1 A0 1.00 140.	
6	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 14									
		A1	B0	G1	A1	B0	P6	A0	14.00 1260.	
7	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 14									
		A1	B0	G1	M6	X6	IO	A0	14.00 1960.	
8	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 1 STEP F 14									
		A1	B0	G1	A3	B0	P6	A0	14.00 1540.	
9	POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 14									
		A1	B0	G1	A3	B0	P6	A0	14.00 1540.	
10	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 14									
		A1	B0	G1	M6	X6	IO	A0	14.00 1960.	
11	POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 16									
		A1	B0	G1	A3	B0	P6	A0	16.00 1760.	
12	GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)									
		A1	B0	G1	(A1	B0	P3	C1)A1	B0 P1 A0 (16)	1.00 840.
13	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS									
		A0	B0	GO	A0	B0	P0	T10 A0	B0 PO A0 1.00 100.	

TOTAL TMU 12150.

28,500

SHEET METAL SHAPE # 4

5" DIA. ROUND DUCT SECTION 38" LG

<u>FAB</u>	<u>39,770</u>	<u>24 MIN</u>
<u>MARK OUT</u>	<u>7,600</u>	<u>-5 MIN</u>
<u>TOTAL TMU:</u>	<u>47,370</u>	<u>28 MIN</u>

6 SH/5

File Description ? MARK OUT ROUND DUCT SECTION

Output to line-printer <Y or N> ? N.

(39, 1)

FIT • W11

RODUCT ~~XXXX~~

MARK OUT ROUND DUCT SECTION WITH AWL AT SHEETMETAL SHOP

PER ROUND DUCT

OFG: 4 31-MAY-83

NASSCO SHEETMETAL ROUND DUCT SECTION

* 20 GAUGE GALV, SHEETMETAL

* 5' DIAMETER ROUND DUCT 38' LG

* MARK OUT WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (4)	1.00		1400.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (4)	1.00		240.
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2			
	A1 B0 G1 A1 B0 P6 A0	2.00		180.
4	HARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)			
	A1 B0 G1 .(A1 B0 P1 R16)A1 B0 P1 A0 (2)	1.00		400.
5	POSITION CORNER TEMPLATE FROM. WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2			
	A1 B0 G1 A3 B0 P6 A0	2.00		220.
6	MARK SHEETMETAL AT WORKTABLE FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R6)A1 B0 P1 A0 (2)	1.00		200.
7	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6)	1.00		1120.
8	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 33 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (33)	1.00		1690.
9	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 (4 5 6 7			
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (26)	1.00		1340.
10	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS			
	A1 B0 G1 A6 B0 P3 A0	1.00		110.
11	MOUE CART FROM WORKTABLE TO SMALLSHEAR			
	A1 B0 G1 A67 B0 P1 A0	1.00		7.00 .
TOTAL TMU				7600.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR ROUND DUCT SECTION

Output to line-printer <Y or N> ? N

(39, 1)

FIT • W11

RODUCT ~~RODUCT~~

SHEAR SHEETMETAL FOR ROUND DUCT SECTION WITH SMALL 8FT, SHEAR AT SHEETMETAL SHOP

PER ROUND DUCT

OFG: 4 31-MAY-83

NASSCO SHEETMETAL ROUND DUCT SECTION

* 20 GAUGE GALV. SHEETMETAL

* 5' DIAMETER ROUND DUCT 38'LG

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS	A1 B0 G1 M1 X6 IO A0	1.00	90.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 2 STEPS	A1 B0 G1 A3 B0 P6 A0	1.00	110.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS	A1 B0 G1 M1 X6 IO A0	1.00	90.
5	REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM SMALLSHEAR TO WORKTABLE	A1 B0 G1 A67 B3 P1 A0	1.00	730.
	TOTAL TMU			1410.

File Description ? CUT CORNERS FOR ROUND DUCT

~~Put~~Put to line-Printer <Y or N) ? N

(39, 1)

FIT' 0 W11

CUT CORNERS FOR ROUND DUCT SECTION WITH SNIPS AT SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 31-MAY-83

NASSCO-SHEETMETAL ROUND DUCT SECTION

* 20 GAUGE GALV. SHEETMETAL

* 5' DIAMETER ROUND DUCT 38'LG

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2	A1 B0 G1 A1 B0 P6 A0	2.00	180.
3	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C3)A1 B0 F1 A0 (2)	1.00	180.
4	FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER.AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (2)	1.00	180.
5.	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM WORKTABLE TO LAPOUT	A1 B0 G1 A54 B0 P1 A0	1.00	570.
		TOTAL TMU		1330.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

2 7 4 0

File Description ? FORM LAP SEAM ON ROUND DUCT

Output to line-printer <Y or N> ? N

(39, 1)

FIT ,W11

~~RODUCT~~

FORM LAP SEAM ON ROUND DUCT SECTION WITH LAPOUT (ROTARY MACHINE)
AT SHEETMETAL SHOP

PER ROUNC DUCT

OFG: 4 31-MAY-83

NASSCO SHEETMETAL ROUND DUCT SECTION

* 20 GAUGE GALV, SHEETMETAL

* 5' DIAMETER ROUOND DUCT 38'LG

* FORM LAP SEAM AND LAPOUT FOR END FLANGE

FITTER BEGINS AT LAPOUT

PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS

	A1	B0	G1	A6	B0	P3	A0	1.00	110.	
2	PUSH LAPOUT-SWITCH PROCESS									
	A1	B0	G1	M1	X16	IO	A0	1.00	190.	
3	POSITION SHEETMETAL FROM LAPOUT TO LAPOUT WITH 3 STEPS									
	A1	B0	G1	A6	B0	P6	A0	1.00	140.	
4	PUSH LAPOUT-SWITCH PROCESS									
	A1	B0	G1	M1	X16	IO	A0	1.00	190.	
5	REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS									
	A1	B0	G1	A6	B0	P3	A0	1.00	110.	
6	MOUE CART FROM LAPOUT TO ROLLER									
	A1	B0	G1	A10	B0	P1	A0	1.00	130.	

TOTAL TMU 870.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

3610

File Description ? FORM ROUND DIAMETER FORUCT

Output to line-printer <Y or N> ? N

(39, 1)

FIT .Wll

~~RODUCT~~

FORM ROUND DIAMETER FOR ROUND DUCT SECTION WITH
ROLLER (ROLL FORMER) AT SHEETMETAL SHOP
PER ROUND DUCT

OFG: 4 31-MAY-83

NASSCO SHEETMETAL ROUND DUCT SECTION

* 20 GAUGE GALV. SHEETMETAL

* 5' DIAMETER ROUND DUCT 38' LG

FITTER BEGINS AT ROLLER

1	MOVE MALLET FROM TOOLROOM TO ROLLER	A54 B0 G1 A54 B0 P1 A0	1.00	1100.
2	POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS	A1 B0 G1 A6 B0 P6 A0	1.00	140.
3	FASTEN [KINK] SHEETMETAL AT ROLLER 2 STRIKES USING MALLET AT ROLLER AND ASIDE PF 40 (4 5 6 7)	A1 B0 G1 (A1 B0 PO F6)A1 B0 F1 A0 (401	1.00	2 8 4 0 9
4	POSITION SHEETMETAL FROM ROLLER TO ROLLER WITH 2 STEPS F 4	A1 B0 G1 A3 B0 P6 A0	4.00	440.
5	FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3 WRIST-TURNS USING HAND F 8	A1 B0 G1 A1 B0 P1 F6 A0 B0. P0 A0	8.00	800.
6	PUSH ROLLER-BUTTON PROCESS F 8 .	A1 B0 G1 M1 X96 IO A0	8.00	7920.
7	REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
8	MOUE CART FROM ROLLER TO WORKTABLE	A1 B0 G1 A54 B3 P1 A0	1.00	600.
TOTAL TMU				13950.

type D,EM,CT,EW,EX,L,LD,LS,T,W <or H for help> ?'

17,560

File Description ? RIVET ROUND DUCT SECTION

Output to line-printer <Y or N> ? N

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( 39, 1)
FIT .Will RODUCT
RIVET ROUND DUCT SECTION WITH RIVET GUN AT SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 31-MAY-83
NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV. SHEETMETAL
* 5' DIAMETER ROUND DUCT 38' LG
* SEAL RIVET HEADS AND SEAM WITH SEALANT
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS
      A1 B1 G1 A6 B0 P3 A0      1.00      110.
2 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE
      A1 B0 G1 A1 B0 P3 A0      1.00      60.
3 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1
  DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 30 ( 4
  5 6 7 )
      A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (30) 1.00      1540,
4 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING
  VISEGRIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 C1 )A1 B0 F1 A0 (2) 1.00      140.
5 FASTEN 5-32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3
  WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
      A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0      1.00      140.
6 POSITION DRILLMOTOR' FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 30
      A1 B0 G1 A1 B0 P6 A0      30.00      2700.
7 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 30
      A1 B0 G1 M6 X6 IO A0      30.00      4200.
8 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 30
      A1 B0 G1 A1 B0 P6 A0      30.00      2700.
9 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 30
      A1 B0 G1 A1 B0 P6 A0      30.00      2700.
10 OPERATE RIVETGUN AT WORKTABLE PROCESS F 30
      A1 B0 G1 M6 X3 IO A0      30.00      3300.
11 POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 32
      A1 B0 G1 A1 B0 P6 A0      32.00      2880.
12 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING
  CAULKINGGUN AT WORKTABLE AND ASIDE PF 32 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (32). 1.00      1640.
13 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
      A0 B0 GO A0 B0 P0 T10 A0 B0 PO A0      1.00      100.

TOTAL TMU      22210.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

39,770

#

4

SHEET METAL SHAPE6" DIA. 38" LG ROUND DUCT

FAB	40520	24 MIN
MARK OUT	7600	6 MIN.
TOTAL	48120	29 MIN.

6 SH#5.

File Description ? SHEAR SHEETMETAL FOR ROUND DUCT

output to line-Printer <Y or N> ? N

(39,. 1)
FIT ,W11. RODUCT.M21
SHEAR SHEETMETAL FOR ROUND DUCT SECTION WITH SMALL 8FT, SHEAR AT
SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 31-MAY-83
NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALU, SHEETMETAL
* 6' ROUND DUCT 38' LG
FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS	-A1 B0 G1 M1 X6 IO A0	1.00	90.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 2 STEPS	A1 B0 G1 A3 B0 P6 A0	1.00'	110.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS	A1 B0 G1 M1 X6 IO A0	1.00	90.
5	REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM SMALLSHEAR TO WORKTABLE	A1 B0 G1 A67 B3 F1 AO.	1.00	730.
TOTAL TMU				1270.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Invalid File Name

Please input file <RODUCT.M22> ?

File Description ? CUT CORNERS FOR ROUND DUCT

Output to line-Printer <Y or N> ?'N

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( 39, 1)
FIT      .W11                      RODUCT.M22
      CUT CORNERS FOR ROUND DUCT WITH SNIPS AT SHEETMETAL SHOP
PER ROUND DUCT                      OFG: 4 31-MAY-83
      NASSCO SHEETMETAL ROUND DUCT SECTION
      * 20 GAUGE GALV. SHEETMETAL
      * 6' ROUND DUCT 38'LG
      FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS
                        A1  B0  G1  A6  B0  P3  A0          1.00      110.
2 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 2
                        A1  B0  G1  A1  B0  P6  A0          2.00      180.
3 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
  SNIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
                        A1  B0  G1  (A1  B0  P3  C3 )A1  B0  P1  A0  (2)  1.00      180.
4 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3
  STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 2 ( 4 5
  6 7 )
                        A1  B0  G1  (A1  B0  P0  F6 )A1  B0  F1  A0  (2)  1.00      180.
5 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
  WITH 4 STEPS
                        A1  B0  G1  A6  B0  P3  A0          1.00      110.
6 MOVE CART FROM WORKTABLE TO LAPOUT
                        A1  B0  G1  A54  B0  P1  A0          1.00      570.

                                TOTAL TMU          1330.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?.

2600

File Description ? FORM LAP SEAM ON ROUND DUCT

Output to line-printer <Y or N> ? N

(39, 1)

FIT • W11

RODUCT.M23

FORM LAP SEAM ON ROUND DUCT SECTION WITH LAPOUT AT SHEETMETAL
SHOP

PER ROUND DUCT

OFG: 4 31-MAY-83

NASSCO SHEETMETAL ROUND DUCT SECTION

* 20 GAUGE GALV. SHEETMETAL

* 6' DIAMETER ROUND DUCT 38' LG

* FORM RIVET SEAM

* LAPOUT END FLANGE

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 PUSH LAPOUT-SWITCH PROCESS

A1 B0 G1 M1 X16 IO A0 1.00 190.

3 POSITION SHEETMETAL FROM LAPOUT TO LAPOUT WITH 2 STEPS

A1 B0 G1 A3 B0. P6 A0 1.00 110.

4 PUSH LAPOUT-SWITCH PROCESS

A1 B0 G1 M1 X16 IO A0 1.00 190.

5 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART-FROM LAPOUT TO ROLLER

A1 B0 G1' A10 B0 P1 A0 '1.00 130.

TOTAL TMU 840.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

3440

17390

File Description .? RIVET ROUND DUCT SECTION

O u t p u t line-Printer.(Y or N> ? N

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( 39, 1)
FIT ,W11 RODUCT.M25
RIVET ROUND DUCT SECTION WITH RIVET GUN AT SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 01-JUN-83
    NASSCO SHEETMETAL ROUND DUCT SECTION
    * 20 GAUGE GALV SHEETMETAL
    * 6' DIAMETER ROUND DUCT 38'LG
    * SEAL RIVET HEADS AND SEAM WITH SEALANT
    FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS
      A1 B0 G1 A6 B0 P3 A0 1.00 110,
2 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE
      A1 B0 G1 A1 B0 P3 A0 1.00 601
3 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1
  DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE' PF 30 ( 4
  5 6 7 )
      A1 B0 G1 (A1 B0 P1 R3 >A1 B0 P1. A0 (30) 1.00 1540.
4 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING
  VISEGRIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (2) 1.00 140.
5 FASTEN 5-32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3
  WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
      A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.
6 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 2 STEPS F 30
      A1 B0 G1 A3 B0 P6 A0 30.00 3300.
7 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 30
      A1 B0 G1 M6 X6 IO A0 30.00 4200.
8 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 30 .
      .A1 B0 G1 A1 B0 P6 A0 30.00 2700.
9 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 30
      A1 B0 G1 A1 B0 P6 A0 30.00 2700.
10 OPERATE RIVETGUN AT WORKTABLE PROCESS F 30
      A1 B0 G1 M6 X3 IO A0 30.00 3300.
11 POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 2 STEPS F 30
      A1 B0 G1 A3 B0 P6 A0 30.00 3300.
12 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING
  CAULKINGGUN AT WORKTABLE AND ASIDE PF 30 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 C1 )A1 B0 F1 A0 (30) 1.00 1540.
13 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
      A0 B0 GO A0 B0 PO T10 A0 B0 PO A0 1.00 100.

TOTAL TMU 23130.
```

Type D,EM,CT,EW,EX,L,LB,LS,M,T,W <or H for help> ?

4,520

Project/Assignment:

MARK CUT ROUND DUCT SECTION

Page /

TITLE (• REQUIRED)		SPECIAL CONDITIONS / • KEYPOINTS		
• ACTIVITY: <u>MARK</u>		<u>N.A.S.S.C.O. SHEETMETAL ROUND DUCT</u>		
• OBJECT: <u>SHEETMETAL</u>		<u>* 20 GAUGE GALV. 6" DIA. ROUND DUCT 38" LG</u>		
<input type="checkbox"/> IN <input type="checkbox"/> ON <input type="checkbox"/> FOR PRODUCT/EQUIPMENT: _____		<u>* MARK OUT WITHOUT TEMPLATE</u>		
TOOL: <u>AWL</u>		DATA UNIT TO BE FILED WORK AREA LAYOUT MOST ANALYSIS COMBINED SUB-OP. TITLE SHEET	TEMPORARY FILE NAME/NO. <u>Fit W.O. #11</u> <u>R.Duct. M.O. #20</u>	DELETE YES <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
• <input type="checkbox"/> TO <input checked="" type="checkbox"/> AT				
SIZE/CAPACITY: _____				
• WORK AREA ORIGIN: <u>SHOP</u>				
WORK AREA NUMBER: _____				
• UNIT: <u>PET ROUND DUCT</u> • OFG: <u>4</u>				
• OPERATOR: _____ • BEGINS: _____		DATE FILED	LOC. NO.	DATA COORDINAT
(If blank, use default beginning Operator and Location.)				
NO.	KEYWORD / METHOD DESCRIPTION	< SIMO > (PF)		
1	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE			
	USING STEEL-TAPE AT WORKTABLE AND ASIDE P.F.-4			
2	MARK DIMENSION ON SHEETMETAL AT WORKTABLE 1 DIGIT			
	USING AWL AT WORKTABLE AND ASIDE P.F.-4			
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL			
	AT WORKTABLE F-2			
4	MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT			
	WORKTABLE 5 DIGITS USING AWL AND ASIDE P.F.-2			
5	POSITION CORNER TEMPLATE FROM WORKTABLE TO			
	SHEETMETAL AT WORKTABLE F-2			
6	MARK SHEETMETAL FROM CORNER TEMPLATE TO SHEETMETAL			
	AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE P.F.-2			
7	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS			
	USING RED PEN AT WORKTABLE AND ASIDE P.F.-6			
8	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE			
	1 DIGIT USING BLACK PEN AT WORKTABLE AND ASIDE P.F.-33			
9	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT			
	USING BLACK PEN AT WORKTABLE AND ASIDE P.F.-26			
10	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE			
	WITH 4 STEPS			
11	MOVE CART FROM WORKTABLE TO SMALL SHEAR			

MOST[®] COMPUTER SYSTEMS
Title and Method Specification Sheet

Acnt. 39/63

Date 5-31-8

Sign. *YOUNG*

Page /

Project/Assignment

SHEAR SHEET METAL FOR ROUND DUCT

TITLE (• REQUIRED)

SPECIAL CONDITIONS / * KEYPOINTS

• ACTIVITY: <u>SHEAR</u>		<u>N.A.S.S.C.O. SHEETMETAL Round Duct</u>			
• OBJECT: <u>SHEETMETAL</u>		<u>* 20 GAUGE GALV 6" ROUND Duct 38" LG</u>			
<input type="checkbox"/> IN <input type="checkbox"/> ON <input type="checkbox"/> FOR PRODUCT/EQUIPMENT: _____					
TOOL: <u>SMALL SHEAR</u>		DATA UNIT TO BE FILED WORK AREA LAYOUT MOST ANALYSIS COMBINED SUB-OP. TITLE SHEET	TEMPORARY FILE NAME/NO. <u>R. Duct M.O. #21</u> 	DELET YES <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
• <input type="checkbox"/> TO <input checked="" type="checkbox"/> AT					
SIZE/CAPACITY: _____					
• WORK AREA ORIGIN: <u>SHOP</u>					
WORK AREA NUMBER: _____					
• UNIT: <u>Pipe Round Duct</u>		• OFG: <u>4</u>			
• OPERATOR: _____		• BEGINS: _____			
(If blank, use default beginning Operator and Location.)		DATE FILED		LOC. NO.	
				DATA COORDINA	

[illegible]

SHEET METAL SHAPE # 4

4" DIA. X 48" LG. ROUND DUCT

<u>FAB</u>	<u>49410</u>	<u>30 MIN.</u>
<u>MARK OUT</u>	<u>7720</u>	<u>5 MIN</u>
<u>TOTAL</u>	<u>57110</u>	<u>35 MIN</u>

Output to line-Printer <Y or N> ? N

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7) A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (4)	1.00	1400.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7) A1 B0 'G1 (A1 B0 P1 R3)A1 B0 P1 A0 (4)	1.00	240.
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2 A1 B0 G1 A3 B0 P6 A0	2.00	220.
4	MARK LINES FROM STRAIGHTEDGE TO SHETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R16.)A1 B0 P1 A0 (2)	1.00	400.
5	POSITION.CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2 A1 B0 G1 A6 B0 P6 A0	2.00	280.
6	MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7) A1 B1 G1 (A1 B0 P1 R6)A1 B0 P1 A0 (2)	1.00	200.
7	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6)	1.00	1120.
8	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 33 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3)A1 B0 Pi A0 (33)	1.00	1690.
9	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3)A1 B0 -P1 A0 (26)	1.00	1340.
10	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS A1 B0 G1 A6 B0 P3 A0	1.00	1101
11	MOVE CART FROM WORKTABLE TO SMALLSHEAR A1 B0 G1 A67 B0 P1 A0	1.00	700.
TOTAL TMU			7700.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help:> ?

File Description ? SHEAR SHEETMETAL FOR ROUND DUCT

Output to line-Printer (Y or N) ? N

39, 1)
FIT .W11

RODUCT

SHEAR SHEETMETAL FOR ROUND DUCT SECTION WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP
PER ROUND DUCT

OFG: 4 01-JUN-83

NASSCO SHEETMETAL ROUND DUCT SECTION

* 20 GAUGE GALV. SHEETMETAL

* 4' DIAMETER ROUND DUCT 48' LG

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS		
	A1 B0 G1 M1 X6 IO A0	1.00	90.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 2 STEPS		
	A1 B0 G1 A3 B0 P6 A0	1.00	110.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS		
	A1 B0 G1 M1 X6 IO A0	1.00	90.
5	REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM SMALLSHEAR TO WORKTABLE		
	A1 B0 G1 A67 B3 P1' 60	1.00	730.
		TOTAL TMU	1410.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help) ?

File Description ? CUT CORNERS FOR ROUND DUCT

Output to line-Printer <Y or N> ?-N

(39, 1)
FIT .W11 **RODUCT**
CUT CORNERS FOR ROUND DUCT SECTION WITH SNIP'S AT SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 01-JUN-83
NASSCO SHEETMETAL ROUND DUCT SECTION
* 20 GAUGE GALV. SHEETMETAL
* 4' DIAMETER ROUND DUCT 48' LG
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2	A1 B0 G1 A1 B0 P6 A0	2.00	180.
3	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C3)A1 B0 P1 A0 (2)	1.00	180.
4	FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER.AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)	A1 B0 G1 (A1 B0 PO F6)A1 B0 P1 A0 (2)	1.00	180.
5	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOUE CART FROM WORKTABLE TO LAPOUT	A1 B0 G1 A54 B0 P1 A0	1.00	570.
			TOTAL TMU	1330.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?;

2740

Output to line-Printer <Y or N> ? N

1	PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS	A1	BO	G1	A6	B0	P3	A0	1.00	110.
2	PUSH LAPOUT-SWITCH PROCESS	A1	BO	G1	M1	X16	IO	A0	1.00	190.
3	POSITION SHEETMETAL FROM LAPOUT TO LAPOUT WITH 4 STEPS	A1	BO	G1	A6	B0	P6	A0	1.00	140.
4	PUSH LAPOUT-SWITCH PROCESS	A1	BO	G1	M1	X16	IO	A0	1.00	190.
5	REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS	A1	BO	G1	A6	B0	P3	A0	1.00	110.
6	MOUE CART FROM LAPOUT TO ROLLER	A1	BO	G1	A10	B0	P1	A0	1.00	130.
TOTAL									TMU	870.

36, 10

File Description ? FORM ROUND DIAMETER FOR ROUND DUCT

Output to line-printer <Y or N) ? .N

(39, 1)

FIT .W11

RODUCT

FORM ROUND DIAMETER FOR ROUND DUCT SECTION WITH
ROLLER (ROLL FORMER) AT SHEETMETAL SHOP
PER ROUND DUCT

OFG: 4 01-JUN-83

NASSCO SHEETMETAL SHAPE 4

* 20 GAUGE GALV. SHEETMETAL

* 4' DIAMETER ROUNDDUCT 48' LG

FITTER BEGINS AT ROLLER

1	MOUE MALLET FROM TOOLROOM TO ROLLER	A54 BO G1 A54 BO P1 A0	1.00	1100.
2	POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS	A1 BO G1 A6 BO P6 A0	1.00	140.
3	FASTEN [KINK] SHEETMETAL AT ROLLER 2 STRIKES USING MALLET AT ROLLER AND ASIDE PF 50 (4 5 6 7)	A1 BO G1 (A1 BO PO F6)A1 BO P1 A0 (50)	1.00	3540 .
4	POSITION SHEETMETAL FROM ROLLER TO ROLLER WITH 3 STEPS F 4	A1 B0 G1 A6 BO P6 A0	4.00	560.
5	FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3 WRIST-TURNS USING HAND F 8	A1 BO G1 A1 BO P1 F6 A0 BO PO A0	8.00	800.
6	PUSH ROLLER-BUTTON PROCESS F 8	A1 BO G1 M1 X96 IO A0	8.00	7920.
7	REPLACE SHEETMETAL2'FROM ROLLER TO CART AT ROLLER WITH 4 STEPS	A1 BO G1 A6 BO P3 A0	1.00	110.
8	MOUE CART FROM ROLLER TO WORKTABLE	A1 B0 G1 A54 B3 P1 A0	1.00	600.
			TOTAL TMU	14770 .

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

/ 8,380

File Description ? RIVET ROUND DUCT SECTION

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 RODUCT _____
 RIVET ROUND DUCT SECTION WITH RIVET (SUN AT SHEETMETAL SHOP
 PER ROUND DUCT OFG: 4 01-JUN-83
 NASSCO SHEETMETAL SHAPE 4
 * 20 GAUGE GALV, SHEETMETAL
 * 4' DIAMETER ROUND DUCT 48' LG
 * SEAL RIVET HEADS AND SEAM WITH SEALANT
 FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE	A1 B0 G1 A1 B0 P3 A0	1.00	60.
3	MARK SHEETMETAL FROM RIVET-HOLE-GUIDE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 38 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (38)	1.00	1940.
4	GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (2)	1.00	140.
5	FASTEN 5-32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE	A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0	1.00	140.
6	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 38	A1 B0 G1 A6 B0 P6 A0	38.00	5320.
7	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 38	A1 B0 G1 M6 X6' IO A0	38.00	5320. 114.
8	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 38	A1 B0 G1 A1 B0 P6 A0	38.00	3420.
9	POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 38	A1 B0 G1 A3 B0 P6 A0	38.00	4180.
10	OPERATE RIVETGUN AT WORKTABLE PROCESS F 38	A1 B0 G1 M6 X3 IO A0	38.00	4180. 7
11	POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 38	A1 B0 G1 A3 B0 P6 A0	38.00	4180.
12	GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE PF 38 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (38)	1.00	1940.
13	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS	A0 B0 GO A0 B0 PO T10 A0 B0 PO A0	1.00	100+

TOTAL TMU 31030,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help) ?

49 4/0

SHEET METAL SHAPE # 4

10" DIA. x 48" LG. - ROUND DUCT

<u>FAB.</u>	<u>51,990</u>	<u>29 MIN</u>
<u>MARK OUT</u>	<u>7,600</u>	<u>5</u>
<u>TOTAL</u>	<u>59,590</u>	<u>34 MIN</u>

File Description ? MARK OUT ROUND DUCT SECTION

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11

RODUCT.M50

MARK OUT ROUND DUCT SECTION WITH AWL AT SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 01-JUN-83

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      NASSCO SHEETMETAL SHAPE 4
      * 20 GAUGE GALV. SHEETMETAL
      * 10' DIAMETER ROUND DUCT 48' LG
      * MARK OUT WITHOUT TEMPLATE
      FITTER BEGINS AT WORKTABLE
1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE.USING
  STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) '1.00      1400.
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) 1.00      240.
3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 2 STEPS F 2
      A1 B0 G1 A3 B0 P6 A0      2.00      220.
4 MARK LINES FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS
  USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 ).
      A1 B0 G1 (A1 B0 P1 RI6 )A1 B0 P1 A0 (2) 1.00      400.
5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL
  AT WORKTABLE F 2 with 3 steps
      A1 B0 G1 A1 B0 P6.A0      2.00      180.
6 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2
  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7
  )
      A1 B0 G1 <A1 B0 P1 R6 )A1 B0 P1 A0 (2) 1.00      200.
7 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
  USING R{DPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
  }1
      A1 B0 G1 (A1 B0 P1 RI6 )A1 B0 P1 A0 (6) 1.00      1120.
8 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
  ASIDE PF 33 ( 4 5 6 7 )
      A1 B0 G1 (A1 . B0 P1 R3 )A1 B0 P1 A0 (33) 1.00      1690.
9 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 ( 4 5 6 7
  )
      A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (26) 1.00      1340.
10 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
  WITH 3 STEPS
      A1 B0 G1 A6 B0 P3 A0      1.00      110.
11 MOUE CART FROM WORKTABLE TO SMALLSHEAR
      A1 B0 611 A67 O P1 A0      1.00      100.

                                          TOTAL TMU      7600.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

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Outputto line-Printer .<Y or N> ? }iN
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Output to line-printer <Y or N> ? N

FITTER BEGINS AT SMALLSHEAR

1.00 730.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT CORNERS FOR ROUND DUCT

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

RODUCT.M52

CUT CORNERS FOR ROUND DUCT SECTION WITH SNIPS AT SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 01-JUN-83

NASSCO SHEETMETAL SHAPE 4

* 20 GAUGE GALV, SHEETMETAL

* 10' DIAMETER ROUND DUCT 48' LG

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 2

A1 B0 G1 A3 B0 P6 A0 2.00 220.

3 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
SNIPS AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 C3)A1 B0 P1 A0 (2) 1.00 180.

4 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3

STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 2 (4 5
6 7)

A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (2) 1.00 180.

5 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH-4 STEPS .

A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM WORKTABLE TO LAPOUT

A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 1370.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

2780

File Description ? FORM. LAP SEAM ON ROUND DUCT

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

RODUCT.M53

FORM LAP SEAM ON ROUND DUCT SECTION WITH LAPOUT (ROTARY MACHINE)

AT SHEETMETAL SHOP

PER ROUND DUCT

OFG: 4 01-JUN-83

NASSCO SHEETMETAL SHAPE 4

* 20 GAUGE GALV. SHEETMETAL

* 10' DIAMETER ROUND DUCT 48' LG

* FORM LAP RIVET SEAM

* LAP OUT END FLANGE

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CAART AT LAPOUT TO LAPOUT WITH 4
STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 PUSH LAPOUT-SWITCH PROCESS

A1 B0 G1 M1 X16 IO A0 1.00 190.

3 POSITION SHEETMETAL FROM LAPOUT TO LAPOUT WITH 3 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

4 PUSH LAPOUT-SWITCH PROCESS

A1 B0 G1 M1 X16 IO A0 1.00 190.

5 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS

A1 B0 'G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM LAPOUT TO ROLLER

A1 B0 G1 A10 B0 P1 A0 1.00 130.

TOTAL 'TMU 870.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

3650

File Description ? RIVET ROUND DUCT SECTION

Output to line-printer <Y or N> ? N

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( 39, 1)
FIT .W11 RODUCT.M55
RIVET ROUND DUCT SECTION WITH RIVET GUN AT SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 26-JUL-83
NASSCO SHEETMETAL SHAPE 4
* 20 GAUGE GALV, SHEETMETAL
* 10' DIAMETER ROUND DUCT 48' LG
* SEAL RIVET HEADS AND SEAM WITH SEALANT
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS
      A1 B0 G1 A6 B0 P3 A0 1.00 110.
2 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE AND ASIDE
      A1 B0 G1 A1 B0 P3 A0 1.00 60.
3 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1
  DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 38 ( 4
  5 6 7 )
      A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (38) 1.00 1940.
4 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING
  VISEGRIPS AT WORKTABLE AND ASIDE PF 2 ( 4.5 6 7 )
      A1 B0 G1 (A1 B0 P3 C1 >A1 B0 F1 A0 (2) 1.00 140.
5 FASTEN 5-32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3
  WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
      A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.
6 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH, 3 STEPS F 38
      A1 B0 G1 A6 B0 P6 A0 38.00 5320.
7 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 38
      A1 B0 G1 M6 X6 I0- A0 38.00 5320.
8 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 1 STEP F 38
      A1 B0 G1 A3 B0 P6 A0. 38.00 4180.
9 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 3 STEPS F 38
      A1 B0 G1 A6 B0 P6 A0 38.00 5320.
10 OPERATE RIVETGUN AT WORKTABLE PROCESS F 38
      A1 B0 G1 M6 X3 I0 A0 38.00 4180.
11 POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 2 STEPS F 42
      A1 B0 G1 A3 B0 P6 A0 42.00 4620.
12 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING
  CAULKINGGUN AT WORKTABLE AND ASIDE PF 42 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (42) 1.00 2140.
13 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
      A0 B0 GO A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 33570.
```

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

SHEET METAL SHAPE

5

5 GORED 5" DIA 90° ELBOW

<u>FAB</u>	<u>73,180</u>	<u>44 MIN</u>
<u>MARK OUT</u>	<u>16,400</u>	<u>10 MIN</u>
<u>WELD</u>	<u>31,820</u>	<u>19 MIN</u>
<u>TOTAL TMU</u>	<u>121,400</u>	<u>73 MIN.</u>

5 SHFS.

File Description ? MARK OUT 5 GORED ELBOW

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

G E L B O W -

MARK OUT SHEETMETAL FOR 5 GORED ELBOW WITH AWL AT SHEETMETAL SHOP
PER GORED ELBOW OFG: 4 23-MAY-83

NASSCO SHEETMETAL SHAFE 5

* 18 GAUGE GALV. SHEETMETAL

* 5' DIAMETER 5 GORED ELBOW

* MARK OUT ELBOW USING TEMPLATE

FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 5

A1 B0 G1 A1 B0 P6 A0 5.00 450.

2 GRIP TEMPLATE TO SHEETMETAL AT WORKTABLE USING
VISEGRIPS AND ASIDE PF 5 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (5) 1.00 290.

3 MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE

1 DIGIT USING AWL AND ASIDE PF 10 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (10) 1.00 540.

4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 34

A1 B0 G1 A1 B0 P6 A0 34.00 3060.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER AT WORKTABLE AND ASIDE F 34.

A1 B0 G1 A1 B0 P0 F3 A1 B0 P1 A0 34.00 2720.

6 MARK CUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 10 (4
5 6 7)

A1 B0 G1 (A1 B0 P1 R16)A1 B0 F1 A0 (10) 1.00 1840.

7 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 99 (4 5 6 7

A1 B0. G1 (A1 B0 P1 R3)A1 B0 P1 A0 (99) 1.00 4990.

8 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 31 (4 5 6 7

A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (31) 1.00 1590.

9 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2100 220.

10 MOVE CART FROM WORKTABLE TO SMALLSHEAR

A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 16400.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR 5 GORED ELBOW

Output to line-Printer <Y or N> ? N

(39, 1)

FIT • W11

G E L B O W

SHEAR SHEETMETAL FOR-5 GORED ELBOW WITH SMALL 8FT, SHEAR AT
SHEETMETAL SHOP
PER GORED ELBOW

OFG: 4 23-MAY-83

NASSCO SHEETMETAL SHAPE 5

* 18 GAUGE GALV. SHEETMETAL

* 5' DIAMETER 5 GORED ELBOW

FITTER BEGINS'AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2

A1 B0 G1 M1 X6 I0 A0 2.00 180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
2 STEPS

A1 B0 G1 A3 B0 P6 A0 1.00 110.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

A1 B0 G1 M1 X6 I0 A0 1.00 90.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 12 STEPS F 2

A1 B0 G1 A24 B0 P3 A0 2.00 580.

6 MOVE CART FROM SMALLSHEAR TO WORKTABLE

A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 1970.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR 5 GORED ELBOW

Output to line-printer <Y or N> ? N

(39, 1)

FIT ● W11

GELBOW.822

SHEAR SHEETMETAL FOR 5 GORED ELBOW WITH UNI-SHEAR AT SHEETMETAL

SHOP

PER GORED ELBOW

OFG: 4 23-MAY-83

NASSCO SHEETMETAL SHAPE 5

* 18 GAUGE GALV. SHEETMETAL

* 5' DIAMETER 5 GORED ELBOW

* SHEAR RADIUS ON GORES

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220 .

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE

A96 B0 G1 A96 B3 P1 A0 1.00 1970 .

3 OPERATE UNISHEAR ON SHEETMETAL PROCESS F 5

A1 B0 G1 M6 X17310 A0 5.00 9050 .

4 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3

STRIKES USING HAMMER-AND ASIDE PF 20 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (20) 1.00 1440 .

5 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220 .

6 MOVE CART FROM WORKTABLE TO ROLLER

A1 B0 G1 A54 B0 P1 A0 1.00 570 .

TOTAL TMU 13470 .

Type D,EM,CT,EW,EX,L,LD,LS,T,W <or H for help> ?

15,440

File Description ? FORM SHEETMETAL FOR 5 GORED ELBOW

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 GELBOW.M23
FORM SHEETMETAL FOR 5 GORED ELBOW WITH ROLLER (ROLL FORMER) AT
SHEETMETAL SHOP
PER GORED ELBOW OFG: 4 24-MAY-83
NASSCO SHEETMETAL SHAPE 5
* 18 GAUGE GALV. SHEETMETAL
* 5' DIAMETER 5 GORED ELBOW
* ROLL UP GORES TO 5' DIAMETER
FITTER BEGINS AT ROLLER

1	PLACE SHEETMETAL2 FROM CART AT ROLLER TO ROLLER WITH 4 STEPS F 5	A1 B0 G1 A6 B0 P3 A0	5.00	550.
2	FASTEN NUT [ROLLS] TO SHEETMETAL AT ROLLER 5 WRIST-TURNS USING HAND F 23	A1 B0 G1 A1 B0 P1 F10 A0 B0 P0 A0	23.00	3220.
3	PUSH ROLLER-BUTTON PROCESS F 40	A1 B0 G1 M1 X96 IO A0	40.00	39600.
4	REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH 4 STEPS F 5	A1 B0 G1 A6 B0 P3 A0	5.00	550.
5	MOVE CART FROM ROLLER TO WELDOUT	A1 B0 G1 A67 B3 P1 A0	1.00	730.
TOTAL TMU				44650.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

60,090

File Description ? ASSEMBLE 5 GORED ELBOW

Output to line-printer <Y or N> ? N

(39, 1)

FIT ● W11

GELBOW.M25

ASSEMBLE 5 GORED ELBOW WITH TACK WELDER AT SHEETMETAL SHOP

PER GORED ELBOW

OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 5

* 18 GAUGE GALV. SHEETMETAL

* 5' DIAMETER 5 GORED ELBOW

* CLAMP SHEETMETAL GORES TOGETHER AND --

* -- TACK WELD

* MOVE TO WELD BOOTH AREA

* COMPLETE IN MWELD..SEE GELBOW.M25

FITTER BEGINS AT WELDOUT

1 PLACE SHEETMETAL FROM CART AT WELDOUT TO WELDOUT WITH
4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 HOVE CCLAMP FROM WORKTABLE TO WELDOUT

A54 B3 G1 A54 B3 P1 A0 1.00 1160.

3 GRIP SHEETMETAL TO SHEETMETAL AT WELDOUT USING
CCLAMPS AND ASIDE PF.10 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 01)A1 B0 P1 A0 (10) 1.00 540.

4 POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL AT
WELDOUT F 99

A1 B0 G1 A1 B0 P6 A0 99.00 8910.

5 POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL AT
WELDOUT F 16

A1 B0 G1 A1 B0 P6 A0 16.00 1440.

6 REPLACE SHEETMETAL FROM WELDOUT TO CART AT WELDOUT
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

7 MOVE CART FROM WELDOUT TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 13090.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help>. ?

73,180

File Description ? WELD 5 GORED ELBOW

Output to line-printer <Y or N> ? N

(39, 3)

WELD .W01 GELBOW.M25

WELD 5 GORED ELBOW WITH TIG-WELDER AT SHEETMETAL SHOP

WELDING BOOTH

* PER GORED ELBOW

OFG: 4 14-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 5

* 18 GAUGE GLAV. SHEETMETAL

* 5' DIAMETER 5 GORED ELBOW

* WELDING DONE IN WELD BOOTH

* GAS TUNGSTEN ARC WELDING

* WORK PERFORMED BY WELDOR

* FITTER TRANSPORTS SHEETMETAL ASSEMBLY

FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	FITTER MOVE CART FROM WORKTABLE TO WELDTABLE		
	A1 B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 B0 G1 M1 X0 IO A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M1 X0 IO A1	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND		
	A1 B0 G1 A1 B0 P1 F3 A0 B0 PO A0	1.00	70.
7	WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M3 X0 IO A1	1.00	60.
8	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4		
	A3 B3 G1 A1 B0 P6 A0	4.00	560.
9	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4		
	A1 B0 G1 M1 X10 IO A0	4.90	520.
10	WELDOR POSITION WELDROD WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE (F 12)		
	A1 B0 G1 A1 B0 P6 A0	12.00	1080 .
11	PULL WELDHOOD FROM LUP AT WELDOR TO DOWN AT WELDOR F 4		
	A1 B0 G1 M1 X0 IO A1	4.00	160.
12	WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE WITH PARTIAL BEND (F 12)		
	A1 B0 G1 A1 B6 P6 A0	12.00	1800.
13	OPERATE WELD STINGER-BUTTON1 PROCESS F 20		
	A1 B0 G1 M6 X81 IO A0	20.00	17800.
14	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4		
	A1 B0 G1 M1 X0 IO A1	4.00	160.
15	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE USING WIREBRUSH AT WELDTABLE AND ASIDE PF 50 (4 5 6 7		

GELBOW M25

) F 4

16	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS	A1 B0 G1 (A1 B0 P1 C1 >A1 B0 P1 A0 (50)	4.00	6160.
17	FITTER HOVE CART FROM WELDTABLE TO WORKTABLE	A1 B0 G1 A6 B0 P3 A0	1.00	110.
		A1 B0 G1 A131B0 P1 A0	1.00	1340.
		TOTAL TMU		31820,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

SHEET METAL SHAPE # 5

5 GORED 12" DIA. 90° ELBOW

<u>FAB</u>	<u>126,890</u>	<u>- 76 MIN.</u>
<u>MARK out</u>	<u>12306</u>	<u>7 MIN.</u>
<u>WELD</u>	<u>65,460</u>	<u>39 MIN.</u>
<u>TOTAL THU.</u>	<u>204,650</u>	<u>123 MIN</u>

5 SHFS.

Please input file <GELBOW.M01> ?

File Description ? MARK OUT 5 GORED ELBOW

Output to line-printer <Y or N> ? N

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( 39, 3)
FIT      .W08                      GELBOW.M01
      MARK OUT SHEETMETAL FOR 5 GORED ELBOW WITH AWL AT SHEETMETAL SHOP
PER GORED ELBOW                      OFG: 4' 31-MAR-83
      NASSCO SHEETMETAL SHAPE #5
      * HULL 414
      * DRAWING 501-073
      * V6-5493
      * 18 GAUGE GALV. SHEETMETAL
      * 12'DIA. ELBOW WITH 12'RADIUS
      * MARK OUT ELBOW WITH STANDARD TEMPLATE
      FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 4 STEPS F 5
      A1 B0 G1 A6 B0 P6 A0          5.00      700.
2 GRIP TEMPLATE TO SHEETMETAL AT WORKTABLE USING
  VISEGRIPS AND ASIDE PF 5 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 C1 )A1.B0 P1 A0 (5)  1.00      290.
  MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE
3 1 DIGIT USING AWL AND ASIDE PF 10 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A6 (10)  1.00      540.
4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 4 STEPS
      A1 B0 G1 A6 B0 P6 A0          1.00      140.
5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
  HAMMER AND ASIDE PF 34 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (34)  1.00     1400.
6 MARK CUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE
  5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 10 ( 4
  5 6 7 )
      A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (10)  1.00     1840.
7 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING BLACKPEN AT WORKTABLE AND ASIDE PF 65 < 4 5 6 7
  > F 2
      A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (65)  2.00     6580.
8 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
  WITH 4 STEPS
      A1 B0 G1 A6 B0 P3 A0          1.00      110.
9 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
      A1 B0 G1 A67 B0 P1 A0        1.00      700.

                                     TOTAL TMU      12300.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help> ?

Please input file <GELBOW.M02 ?

File Description ? SHEAR SHEETMETAL FOR 5 GORED ELBOW

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W08

GELBOW.M02

SHEAR SHEETMETAL FOR 5 GORED ELBOW WITH SMALL SHEAR (8FT. SHEAR)
AT SHEETMETAL SHOP

PER GORED ELBOW

OFG: 4 31-MAR-83

NASSCO SHEETMETAL SHAPE # 5

* HULL 414

* DRAWING 501-073

* V6-54493

* 18 GAUGE GALV. SHEETMETAL

* 12'DIA. ELBOW WITH 12'RADIUS

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS

A1	B0	G1	A6	B0	P6	A0	1.00	140.
----	----	----	----	----	----	----	------	------

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

A1	B0	G1	M1	X6	IO	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
4 STEPS

A1	B0	G1	A6	B0	P6	A0	1.00	140.
----	----	----	----	----	----	----	------	------

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

A1	B0	G1	M1	X6	IO	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

6 MOVE CART FROM SMALLSHEAR TO WORKTABLE

A1	B0	G1	A67	B3	P1	A0	1.00	730.
----	----	----	-----	----	----	----	------	------

TOTAL TMU							1300.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Please input file <GELBOW.M03 ?

File Description ? SHEAR RADIUS FOR 5 GORED ELBOW

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W08

GELBOW.M03

SHEAR SHEETMETAL RADIUS FOR 5 GORED ELBOW WITH UNI-SHEAR A1-SHEETMETAL SHOP

PER GORED ELBOW

OFG: 4- 31-MAR-83

NASSCO SHEETMETAL SHAPE #5

* HULL 414

* DRAWING 501-073

* V6-5493

* 18 GAUGE GALV. SHEETMETAL

* 12'DIA. ELBOW WITH 12'RADIUS

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 MOVE UNI-SHEAR2 FROM TOOLROOM TO WORKTABLE

A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 OPERATE UNISHEAR ON SHEETMETAL PROCESS F 12

A1 B0 G1 M6 X17310 A0 12.00 21720.

4 FASTEN (FLATTEN) CORNERS ON SHEETMETAL AT WORKTBLE 3

STRIKES.USING HAMMER AND ASIDE PF 20 (4.5 6 7)

A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 -(20) 1.00 1440.

5 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO ROLLER

A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 25920.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help> ?

27,220

Please input file (GELBOWM.04 ?

File Description ? FORM 12'DIAMETER ON ELBOW GORES

OutPut to line-printer <Y or N> ? N

(39, 3)

FIT .W08

GELBOW.M04

FORM SHEETMETAL FOR 12' DIAMETER ELBOW GORES WITH ROLLER AT
SHEETMETAL SHOP

PER GORED ELBOW

OFG: 4 31-MAR-83

NASSCO SHEETMETAL SHAPE # 5

* HULL 414

* DRAWING 501-073

* 06-5493

* 18 GAUGE GALV. SHEETMETAL

* 12'DIA. ELBOW WITH 12' RADIUS

* ROLL UP 5 GORES TO 12' DIA. ON ROLLER

FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4
STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

2 FASTEN NUT [ROLLS] TO SHEETMETAL AT ROLLER 5
WRIST-TURNS USING HAND F 23

A1	B0	G1	A1	B0	P1	F10	A0	B0	P0	A0	23.00	3220.
----	----	----	----	----	----	-----	----	----	----	----	-------	-------

3 PUSH ROLLER-BUTTON PROCESS F 40

A1.	B0	G1	M1	X96	IO	A0	40.00	39600.
-----	----	----	----	-----	----	----	-------	--------

4 REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH
4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

5 MOVE CART WITH SHEETHETAL2 FROM ROLLER TO WELDOUT

A1	B0	G1	A67	B3	P1	A0	1.00	730.
----	----	----	-----	----	----	----	------	------

TOTAL	TMU	43770.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help>. ?

70,9 90

Please, input file (GELBOW.M05 ?

File Description ? ASSEMBLE 5 GORED ELBOW

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W08

GELBOW.M05

ASSEMBLE SHEETMETAL FOR 5 GORED ELBOW WITH TACK WELDER AT
SHEETMETAL SHOP

PER GORED ELBOW

OFG: 4 31-MAR-83

NASSCO SHEETMETAL SHAPE #5

* HULL 414

* DRAWING 501-073

* V6-5493

* 18 GAUGE GALV. SHEETMETAL

* 12'DIA. ELBOW WITH 12'RADIUS

* ASSEMBLE 5 GORED ELBOW WITH TACK WELDS

* THIS ELBOW COMPLETE WITH MWELD FOR (M061

FITTER BEGINS AT WELDOUT

1 PLACE SHEETMETAL FROM CART AT WELDOUT TO WELDOUT WITH
4 STEPS F 3

A1 B0 G1 A6 B0 P3 A0 3.00 330.

2 MOVE CCLAMPS FROM WORKTABLE TO WELDOUT

A54 B3 G1 A54 B3 P1 A0 1.00 1160.

GRIP SHEETMETAL TO SHEETMETAL AT WELDOUT USING

CCLAMPS AND ASIDE PF 10 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (10) 1.00 540.

4 POSITION TACKWELDER. FROM WELDOUT TO SHEETMETAL AT
WELDOUT PF 3 (4 5 6) F 96

A1 B0 G1 (A1 B0 P6)A0 (3) 96.00 22080.

5 OPERATE TACKWELDER AT WELDOUT PROCESS F 96

A1 B0 G1 M6 X3 IO A0 96.00 10560.

6 OPERATE TACKWELDER AT WELDOUT PROCESS F 96

A1 B0 G1 M6 X3 IO A0 96.00 10560.

7 OPERATE TACKWELDER AT WELDOUT PROCESS F 96

A1 B0 G1 M6 X3 IO A0 96.00 10560.

8 REPLACE SHEETMETAL FROM WELDOUT TO CART AT WELDOUT
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

TOTAL TMU 55900.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

126,890

File Description ? WELD 5 GORED ELBOW

Output to line-printer <Y or N> ? N

(39, 3)

WELD • W01

GELBOW.M06

WELD 5 GORED ELBOW WITH TIG-WELDER AT SHEETMETAL SHOP

WELDING BOOTH

PER GORED ELBOW

OFG: 4 14-JUL-83

WELDING FOR NASSCO SHEETMETAL SHAPE 5

* 18 GAUGE GALV. SHEETMETAL

* 12' DIAMETER 90 DEGREE ELBOW WITH--

* --12' RADIUS

* GAS TUNGSTEN ARC WELDING DONE IN WELD--

* --AREA BOOTH

* FITTER TRANSPORTS SHEETMETAL ASSEMBLY

* WORK PERFORMED BY WELDOR

FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	FITTER HOVE CART FROM WORKTABLE TO WELDTABLE		
	A1 B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 B0 G1 M1 X0 IO A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M1 X0 IO A1	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINE 1 WRIST-TURN USING HAND		
	A1 B0 G1 A1 B0 P1 P3 A0 B0 P0 A0	1.00	70.
7	WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINE TO ON AT WELDMACHINE		
	A1 B0 G1 M3 X0 IO A1	1.00	60.
8	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 8		
	A3 B3 G1 A1 B0 P6 A0	8.00	1120.
9	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 8		
	A1 B0 G1 M1 X10 IO A0	8.00	1040.
10	WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLED		
	A1 B0 G1 A1 B0 P6 A0	8.00	720.
11	PULL WELDHOOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 4		
	A1 B0 G1 M1 X0 IO A1	4.00	160.
12	WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 8		
	A1 B0 G1 A1 B6 P6 A0	8.00	1200.
13	OPERATE WELDING STINGER-BUTTON1 PROCESS F 48		
	A1 B0 G1 M6 X81 IO A0	48.00	42720.
1 4	WELDOR PUSH WELDHOOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4		
	A1 B0 G1 M1 X0 IO A1	4.00	160.

GENERAL INFO

15	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE USING WIREBRAUSH AT WELDTABLE AND ASIDE PF 50 (4 5 6 7) F 8		
	A1 B0 G1 (A1 B0 P1 C1)A1 B0 P1 A0 (50)	8.00	12320.
16	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE USING WIREBRUSH AT WELDTABLE AND ASIDE PF 80 (4 5 6 7		
	A1 B0 G1 (A1 B0 P1 C1)A1 B0 P1 A0 (80)	1.00	2440.
17	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
18	FITTER MOVE CART FROM WELDTABLE TO WORKTABLE		
	A1 B0 G1 A131B0 P1 A0	1.00	1340.
TOTAL TMU			65460.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

SHEET METAL SHAPE

6

7" X 3" TO 5" DIA. X 14" LG. OFFSET SQUARE TO ROUND

<u>FAB.</u>	<u>52,210</u>	<u>31 MIN.</u>
<u>MARK OUT</u>	<u>21,490</u>	<u>13 MIN.</u>
<u>WELD</u>	<u>11,230</u>	<u>7 MIN.</u>
<u>TOTAL TMU</u>	<u>84,930</u>	<u>51. MIN.</u>

UUUU

Type D,EM,CT,EW,EX,L,LD,L

Please input file <OS2RND..M01 ?

File Description ? MARK OUT OFFSET SQUARE TO ROUND

Ouput to line-winter <Y or N> ? N

(39, 3)

FIT .W08

OS2RND ..M01

MARK OUT SHEETMETAL FOR OFFSET SQUARE TO ROUND WITH AWL AT
SHEETMETAL SHOP

PER OFFSET SQUARE TO ROUND

OFG: 4 31-MAR-83

NASSCO SHEETMETAL SHAPE' 16

* HULL 418

* DRAWING 501-082

* V2-82008

* V6-1542

* 20 GAUGE GALV. SHEETMETAL

* 7'X3'TO 5'DIA. SQUARE TO ROUND 14'L

* OFFSET 10 1/2'

* MARK OUT SQUARE TO ROUND WITH A TEMPLATE

FITTER BEGINS AT WORKTABLE

1	PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	POSITION 2.WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
3	MARK OUTLINES FROM TEMPLATES TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 16 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (16)	1.00	2920.
4	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 38		
	A1 B0 G1 A1 B0 P6 A0	38.00	3420.
5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 38 (4 5 6 7).		
	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (38)	1.00	1560.
6	REPLACE 2 WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
7	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
8	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (16)	1.00	2920.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL 1 DIGIT USING BLACKPEN AT WORKTABLE AND HOLD F 60		
	A1 B0 G1 A1 B0 P1 R3 A0 B0 P0 A0	60.00	4200.
10	MOVE BLACKPEN FROM FITTER TO SHEETMETAL AT WORKTABLE		
	A1 B0 G1 A1 B0 P1 A0	1.00	40.
11	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7		

	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	2640.
12	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (2)	1.00	720.
13	MARK. DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (4)	1.00	240.
14	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
15	HARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 2 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (2)	1.00	400.
16	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (2)	1.00	400.
17	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
18	MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR		
	A1 B0 G1 A67 B0 P1 A0	1.00	700.
		TOTAL TMU	21490.

Type D,EM,CT,EW,EX,L,LD,L,M,T,W <or H for help> ?

Please input file <OS2RND.M02> ?

File Description ? SHEAR OFFSET SQUARE TO ROUND

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W08

OS2RND

SHEAR SHEETMETAL FOR OFFSET SQUARE TO ROUND WITH
SMALL 8 FT. SHEAR AT SHEETMETAL SHOP
PER OFFSET SQUARE TO ROUND

OFG: 4 31-MAR-83

NASSCO SHEETMETAL SHAPE #6

* HULL 418

* DRAWING 501-082

* 'J2-82008

* V6-1542

* 20 GAUGE GALV. SHEETMETAL

* 7'X3' TO 5' DIA. SQUARE TO ROUND'14'L

* OFFSET 10 1/2'

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS

A1	B0	G1	A6	B0	P6	A0	1.00	140.
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2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

A1	B0	G1	M1	X6	IO	A0	1.00	90.
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3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 7

A1	B0	G1	A1	B0	P6	A0	7.00	630.
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4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 7

A1	B0	G1	M1	X6	IO	A0	7.00	630.
----	----	----	----	----	----	----	------	------

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 16 STEPS

A1	B0	G1	A32	B0	P3	A0	1.00	370.
----	----	----	-----	----	----	----	------	------

6 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE

A1	B0	G1	A67	B3	P1	A0	1.00	730.
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TOTAL TMU 2590.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or for help> ?

Please input file <OS2RND.M03> ?

file Description ? SHEAR RADIUS FOR OFFSET SQUARE TO ROUND

Output to line-printer <Y or N> ? N

39, 3)
FIT .W08 OS2RND
SHEAR SHEETMETAL FOR OFFSET SQUARE TO ROUND RADIUS WITH UNI-SHEAR .
AT SHEETMETAL SHOP
PER OFFSET SQUARE TO ROUND OFG: 4 31-MAR-83

NASSCO SHEETMETAL SHAPE # 6

* HULL 418
* DRAWING 501-082
* V2-82008
* V6-1542
* 20 GAUGE GALV. SHEETMETAL
* 7'X3'TO S'DIA. SQUARE TO ROUND
* 14' L OFFSET (OFFSET 10 1/2')
* SHEAR RADIUS ON 2 HALVES OF OS2RND
* OS2RND = OFFSET SQUARE TO ROUND

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS .

A1 BO G1 A6 BO P3 A0 1.00 110.

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE

A96 BO G1 A96 B3 P1 A0 1.00 1970.

3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 4

A1 BO G1 M6 X173IO A0 4.00 .7240.

4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 1 CUT USING

SNIPS AT WORKTABLE AND ASIDE PF 20 (4 5 6 7)

A1 BO G1 (A1 BO P3 C1) A1 BO P1 A0 (20) 1.00 1040,

5 FASTEN (FLATTEN) CORNERS ON SHEETMETAL AT WORKTABLE 3
STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4
5 6 7)

A1 BO G1 (A1 BO PO F6) A1 BO P1 A0 (12) 1.00 880.

6 REPLACE SHEETMETAL2.FROM WORKTABLE TO CART A1- WORKTABLE
WITH 4 STEPS

A1 BO G1 A6 BO P3 A0 1.00 110.

7 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LEAFBRAKE

A1 BO G1 A81 BO P1 A0 1.00 840.

TOTAL TMU 12190.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W<or H for help> ?-

/c1/7P

Please input file <OS2RND.M04> ?

File Description ? BEND RADIUS FOR OFFSET SQUARE TO ROUND

Output to line-Printer <Y or N> ? N

(39, 3)
FIT .W08 OS2RND.M04>?
BEND SHEETMETAL RADIUS FOR OFFSET SQUARE TO ROUND WITH LEAF BRAKE
AT SHEETMETAL SHOP
PER OFFSET SQUARE TO ROUND OFG: 4 31-MAR-83
NASSCO SHEETMETAL SHAPE # 6
* HULL 418
* DRAWING 501-082
* V2-82008
* V6-1542
* 20 GAUGE GALV. SHEETMETAL
* 7'X3'TO 5'DIA. SQUARE TO ROUND 14'L
* OFFSET 10 1/2'
* ADJUST ANGLE ON LEAFBRAKE BEFORE BENDING
FITTER BEGINS AT LEAFBRAKE

1	PLACE SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFBRAKE WITH 4 STEPS F 2		
	A1 BO G1 A6 BO P3 A0	2.00	220.
2	MOVE VISEGRIPS FROM WORKTABLE TO LEAFBRAKE		
	A81 B3 G1 A81 BO P1 A0	1.00	1670.
3	GRIP LEAFBRAKE ADJUSTMENT ROD TO LEAFBRAKE USING VISEGRIPS AND ASIDE		
	A1 BO G1 A1 BO P3 C1 A1 BO P1 A0	1.00	90.
4	OPERATE LEAFBRAKE-LEVER PROCESS F 56		
	A1 BO G1 M6 X16 IO A0	56.00	13440.
5	REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE WITH 4STEPS F 2		
	A1 BO G1 A1 BO P3 A0	2.00	120.
6	MOVE CART WITH SHEETMETAL FROM LEAFBRAKE TO HAND-ROLLER AT WORKBENCH		
	A1 BO GL A10 B3 P1 A0	1.00	160.
	TOTAL TMU		15700.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

3 0 , 4 8 0 .

Please input file <OS2RND,MOS> ?

file Description ? FORM COLLAR FOR OFFSET SQUARE TO ROUND

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W08 O S 2 R N D
FORM SHEETMETAL FOR OFFSET SQUARE TO ROUND COLLAR WITH
HAND OPERATED ROLLER AT SHEETMETAL SHOP
PER OFFSET SQUARE TO ROUND OFG: 4 31-MAR-83
NASSCO SHEETMETAL SHAPE # 6
* HULL 418
* DRAWING 501-082 .
* V2-82008
* V6-1542
* 20 GAUGE GALV, SHEETMETAL
* 7.X3' TO 5'DIA. SQUARE TO ROUND 14' L
* OFFSET 10 1/2'
FITTER BEGINS AT WORKBENCH

1 PLACE SHEETMETAL FROM CART AT WORKBENCH TO HAND-ROLLER
A-f WORKBENCH WITH 4 STEPS
AL BO G1 A6 BO P3 AO 1.00 110.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT HAND-ROLLER AT
WORKBENCH 5 SPINS USING HAND F 2
A1 BO G1 AL BO P1 F10 A0 BO PO A0 2.00 280.
3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 2
A1 BO G1 M6 X0 IO A0 2.00 160.
4 LOOSEN BOLT [ROLLS] TO SHEETMETAL AT HAND-ROLLER AT
WORKBENCH 5 SPINS USING HAND
A1 BO G1 A1 BO P1 L10 A0 BO PO A0 1.00 140.
5 REPLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO
CART AT WORKBENCH WITH 4 STEPS
A1 BO G1 A6 BO P3 AO 1.00 110.
6 MOVE CART WITH SHEETMETAL2 FROM WORKBENCH TO PANBRAKE
A1 BO G1 A32 BO PI A0 1.00 350 .

TOTAL TMU 1150.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

31630

Please input file <OS2RND ?

file Description ? BEND LAP ENDS FOR OFFSET SQUARE TO ROUND

Output to line-printer <Y or N> ? N

(391 3)

FIT .W08

OS2RND.M06

BEND SHEETMETAL LAP ENDS FOR OFFSET SQUARE TO ROUND WITH

PAN BRAKE AT SHEETMETAL SHOP

PER OFFSET SQUARE TO ROUND

OFG: 4 31-MAR-83

NASSCO SHEETMETAL SHAPE # 6

* HULL 418

* DRAWING 501-082

* V2-82008

* V6-1542

* 20 GAUGE GALV+ SHEETMETAL

* 7.X3' TO 5'DIA. SQUARE TO ROUND 14' L

* OFFSET 10 1/2'

* KINK UP OR DOWN LAP ENDS AS INDICATED

FITTER BEGINS AT PANBRAKE

1 FASTEN NUT TO PANBRAKE 5 WRIST-STROKES USING 15.16

WRENCH AT PANBRAKE AND ASIDE

A1 BO G1 A1 BO P3 F16 A1 BO P1 A0 1.00 240.

2 POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE
WITH 4 STEPS F 7

A1 BO G1 A6 BO P6 A0 2.00 280 .

3 OPERATE PANBRAKE-LEVER PROCESS

A1 BO G1 M6 X96 IO A0 1.00 1040.

4 POSITION SHEETMETAL FROM PANBRAKE TO PANBRAKE F 5

A1 BO G1 A1 BO F6 A0 5.00 450 .

5 OPERATE PANBRAKE-LEVER PROCESS F 5

A1 BO G1 M6 X96 IO A0 5.00 5200 .

6 REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE
WITH 4 STEPS F 2

A1 BO G1 A6 BO P3 A0 2.00 220 .

7 MOVE CART WITH SHEETMETAL FROM PANBRAKE TO WORKTABLE

A1 BO G1 AS4 B3 P1 A0 1.00 600.

TOTAL TMU 8030

39,660

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

T

Please input file (OS2RND

file Description ? ASSEMBLE OFFSET SQUARE TO ROUND

Output to line-printer <Y 0r N> ? N

(391 3)
FIT .W08 OS2RND.M07
ASSEMBLE SHEETMETAL FOR OFFSET SQUARE TO ROUND WITH RIVET GUN AT
SHEETMETAL SHOP
PER OFFSET SQUARE TO ROUND OFG: 4 31-MAR-83
NASSCO SHEETMETAL SHAPE #6
* HULL 418
* DRAWING 501-082
* V2-82008
* V6-1542
* 20 GAUGE GALV, SHEETMETAL
* 7.X3' TO 5'DIA. SQUARE TO ROUND 14'L
* OFFSET 10 1/2"
* LEAVE TOP END LOOSE TO FIT COLLAR
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL 2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS		
	A1 BO G1 A6 BO P3 A0	1.00	110.
2	POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS		
	A1 BO G1 A6 BO P6 A0	1.00	140.
3	FASTEN 5 / 32DRILL-BIT FROM WORKTABLE TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AND ASIDE		
	A1 BO G1 A0 B0 (P3 A1 F6)A1 BO P1 A0 (5)	1.00	540.
4	POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS		
	A1 BO G1 A6 BO P6 A0	1.00	140.
5	MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 10 (4 5 6 7)		
	A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (10)	1.00	540.
6	GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AND ASIDE PF 2 (4 5 6 7)		
	A1 BO G1 (A1 BO P3 C1) A1 BO P1 A0 (2)	1.00	140.
7	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2		
	A1 BO G1 M6 X6 IO A0	2.00	280.
8	POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2		
	A1 BO G1 A1 BO P6 A0	2.00	180.
9	OPERATE RIVETGUN AT WORKTABLE PROCESS F 2		
	A1 BO G1 M6 X3 IO A0	2.00	220.
10	MOVE SHEETMETAL FROM WORKTABLE TO WELDOUT		
	A1 BO G1 A54 B3 P1 A0	1.00	600.
	TOTAL TMU		2890.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

42,550

T

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Please input file <OSZRND
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file Description ? RIVET OFFSET SQUARE TO ROUND
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Output to line-printer <Y or N> ? N

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(39, 3)
FIT .W08 OS2RND.M09
RIVET SHEETMETAL FOR OFFSET SQUARE TO ROUND WITH RIVET GUN AT
SHEETMETAL SHOP
PER OFFSET SQUARE TO ROUND OFG: 4 31-MAR-83
NASSCO SHEETMETAL SHAPE #6
* HULL 418
* DRAWING 501-082
* v2-82008
* V6-1542
* 20 GAUGE GALV. SHEETMETAL
* 7'X3' TO 5'DIA. SQUARE TO ROUND 14'L
* OFFSET 10 1/2'
* COMPLETE WITH MWELD (M10)
FITTER BEGINS AT WORKTABLE

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1	PLACE SHEETMETAL FROM FITTER TO WORKTABLE	A1	BO	G1	A1	BO	P3	A0	1.00	60.					
2	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 18	A1	BO	G1	M6	X6	IO	A0	18.00	2520.					
3	POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 18	A1	BO	G1	A1	BO	P6	A0	18.00	1620.					
4	OPERATE RIVETGUN ON SHEETMETAL AT WORKTABLE PROCESS F 18	A1	BO	G1	M6	X3	IO	A0	18.00	1980.					
5	GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AND ASIDE PF 6 (4 5 6 7)	A1	BO	G1	(A1	BO	P3	C1)A1	BO	P1	A0	(6)	1.00	340.
6	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS	A0	BO	GO	A0	B0	PO	T10	A0	BO	PO	A0	1.00	100.	
													TOTAL TMU	6620.	

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?.

5 2 , 2 1 0

File Descripion ? WELD OFFSET SQUARE TO ROUND

output to line-printer <Y or N> ? N

(39, 3)

WELD . .W01

OS2RND.M10

WELD OFFSET SQUARE TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP

WELDING BOOTH

PER OFFSET SQUARE TO ROUND

OFG: 4 18-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 6

* HULL 418

* DRAWING 501-082

* v2-82008

* V6-1542

* 20 GAUGE GALV. SHEETMETAL

* 7X3 TO 5' DIAMETER SQUARE TO ROUND--

* --14' LG OFFSET 10 1/2'

* WELDER PERFORMS THE WORK

* FITTER TRANSPORT SHEETMETAL

FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
	A1 BO G1 A6 BO P3 A0	1.00	110.
2	FITTER MOVE CART FROM-WORKTABLE TO WELDTABLE		
	A1 BO G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS.		
	A1 BO G1 A6 BO P3 A0	1.00	110.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 BO G1 M1 X0 IO A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 BO G1 M1 X0 IO A1	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND		
	A1 BO G1 A1 BO P1 F3 A0 BO PO A0	1.00	70.
7	WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 BO G1 M3 X0 IO A1	1.00	60.
8	WELDOR POSITION ANTS-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2		
	A3 B3 G1 A1 BO P6 A0	2.00	280.
9	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2		
	A1 BO G1 M1 X10 IO A0	2.00	260.
10	WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 3		
	A1 BO G1 A1 BO F6 A0	3.00	270.
11	PULL WELDHOOB FROM UP AT WELDOR TO DOWN AT WELDOR F 5		
	A1 BO G1 M1 X0 IO A1	5.00	□□ .
12	WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 3		
	A1 BO G1 A1 B6 P6 A0	3.00	450.
13	OPERATE WELDING STINGER-BUTTON1 PROCESS F 5		
	A1 BO G1 H6 X81 IO A0	5.00	4450.
14	PUSH WELDHOOB FROM DOWN AT WELDOR.TO UP AT WELDOR F 5		

052END. M10

				A1	BO	G1	M1	X0	IO	A1	5.00	200.					
15	WELDOR	DEBURR	WELDED	ASSEMBLY	AT	WELDTABLE-	1	ARM-STROKE									
				USING	WIREBRUSH	AT	WELDTABLE	AND	ASIDE	PF	SO	(4 5 6 7					
				A1	BO	G1	(A1	BO	P1	C1)	A1	BO	P1	A0	(50)	1.00	1540.
16	REPLACE	SHEETMETAL	ASSEMBLY	FROM	WELDTABLE	TO	CART	AT									
				WELDTABLE	WITH	4	STEPS										
				A1	BO	G1	A6	BO	P3	A0	1.00	110.					
17	FITTER	MOVE	CART	FROM	WELDTABLE	TO	WORKTABLE										
				A1	BO	G1	A131	BO	P1	A0	1.00	1340.					

Type D,EM,CT,EW,EX,L,LD,LS,M,W <or H for help> ?

SHEET METAL SHAPE #6

20" X 15" to 17" DIA. X 30" LG OFFSET SQUARE to ROUND

<u>FAB</u>	95990	57 MIN.
<u>MARK OUT</u>	30730	18 MIN
<u>WELD</u>	27380	16 MIN
<u>TOTAL TMU.</u>	154100	92 MIN

File Description ? MARK OUT SHEETMETAL FOR SQUARE TO ROUND OFF CENTER

File Description ?

Outbut to line-printer (Y or N> ? N

(39, 1)

FIT .W11 OSQ2RN.M20
MARK out SHEETMETAL FOR SQUARE TO ROUND OFF CENTER WITH AWL AT
SHEETMETAL SHOP

PER SQUARE TO ROUND OFF CENTER OFG: 4 11-MAY-83

NASSCO SHEETMETAL SHAPE 6
* 18GAUGE GALV. SHEETMETAL
* 20'X15' TO 17' DIA. 30'L OFFSET LO'
* MARK OUT WITH TEMPLATE
* MARK OUT COLLAR WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

- 1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 2
A1 BO G1 A3 BO P6 A0 2.00 220.
- 2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT
WORKTABLE WITH 3 STEPS F 6
A1 BO G1 A6 BO P6 A0 6.00 840.
- 3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
DIGITS USING AWL 'AT WORKTABLE AND ASIDE PF 16 (4 5 6
7)
A1 BO G1 (A1 BO P1 R16)A1 BO P1 A0 (16) 1.00 2920.
- 4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 76
A1 BO G1 A3 BO P6 A0 76.00 8360.
- 5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER AT WORKTABLE AND ASIDE PF 76 (4 5 6 7)
.A1 BO G1 (A1 BO P1 F3) A1 BO P1 A0 (76) 1.00 3080.
- 6 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE
WITH 3 STEPS F 6
A1 BO G1 A6 BO P3 A0 6.00 660.
- 7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE F 2
A1 BO G1 A1 BO P3 A0 2.00 120.
- 8 MARK CUT LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING
REDPEN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)
A1 BO G1 (A1 BO P1 R16) A1 BO P1 A0 (16) 1.00 2920.
- 9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 70 (4 5 6 7)
A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (70) 1.00 3540.
- 10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7
)
A1 BO G1 (A1 BO P1 R3)A1 BO P1 A0 (52) 1.00 2640.
- 11 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)
A1 BO G1 (A1 BO P1 M32) A1 BO P1 A0 (3) 1.00 1060.
- 12 MARK DIMENSION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
AWL AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)
A1 BO G1 (A1 BO P1 R3)A1 BO P1 A0 (3) 1.00 190.

13	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2		
	A1 BO G1 A6 BO P6 A0	2.00	280.
14	MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)		
	A1 BO G1 (A1 BO P1 R16)A1 BO P1 A0 (2)	1.00	400.
15	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)		
	A1 BO G1 (A1 BO P1 R16)A1 BO P1 A0 (2)	1.00	400.
16	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 27 (4 5 6 7		
	A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (27)	1.00	1390.
17	MARK CONSTRUCTION INFORMATION ON SHEETMETAL 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 15 (4 5 6 7		
)		
	A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (15)	1.00	790.
18	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 BO G1 A6 BO P3 A0	2.00	•••••
19	MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR		
	A1 BO G1 A67 BO P1 A0	1.00	700.
	TOTAL TMU		30730.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER

output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

OSQ2RN.M21

SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER WITH
SMALL 8FT. SHEAR AT SHEETMETAL SHOP

PER SQUARE TO ROUND OFF CENTER

OFG: 4 11-MAY-83

NASSCO SHEETMETAL SHAPE 6

* 18 GAUGE GALV. SHEETMETAL

* 20'X15'TO 17'DIA. 30'L OFFSET 10'

* 2 FITTERS REQUIRED FOR FIRST 2 CUTS

* CUT 1 1/2' STRIPS FOR COLLAR

FITTER BEGINS AT SMALLSHEAR

- 1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2

A1	BO	G1	A6	BO	P6	A0	2.00	280.
----	----	----	----	----	----	----	------	------

- 2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2

A1	BO	G1	M1	X6	IO	A0	2.00	180.
----	----	----	----	----	----	----	------	------

- 3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
3 STEPS F 8

A1	BO	G1	A6	BO	P6	A0	8.00	1120.
----	----	----	----	----	----	----	------	-------

- 4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8

A1	BO	G1	M1	X6	IO	A0	8.00	720.
----	----	----	----	----	----	----	------	------

- 5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 10 STEPS F 2

A1	BO	G1	A16	BO	P3	A0	2.00	420.
----	----	----	-----	----	----	----	------	------

- 6 MOVE CART WITH SHEETMETAL& FROM SMALLSHEAR TO WORKTABLE

A1	BO	G1	A67	B3	P1	A0	1.00	730.
----	----	----	-----	----	----	----	------	------

TOTAL TMU 3450.

type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

OSQ2RN,M21

SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER WITH
SMALL 8FT. SHEAR AT SHEETMETAL SHOP

PER SQUARE TO ROUND OFF CENTER

OFG: 4 11-MAY-83

NASSCO SHEETMETAL SHAPE 6

* 18 GAUGE GALU, SHEETMETAL

* 20'X15' TO 17'DIA. 30'L OFFSET 10'

* 2 FITTERS REQUIRED FOR FIRST 2 CUTS

* CUT 1 1/2' STRIPS FOR COLLAR

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2

A1 BO G1 A6 BO P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2

A1 BO G1 M1 X6 IO A0 2.00 180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
3 STEPS F 8

A1 BO G1 A6 BO P6 A0 8.00 1120.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8

A1 BO G1 M1 X6 IO A0 8.00 720.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 10 STEPS F 2

A1 BO G1 A16 BO P3 A0 2.00 420.

6 MOUE CART WITH SHEETMETAL22, FROM SMALLSHEAR TO WORKTABLE

A1 BO G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 3450.

type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR RADIUS FOR SQUARE TO ROUND OFF CENTER

Output to line-printer <Y or N> ? N

(391, 1)
FIT .W11 OSQ2RN.M22
SHEAR RADIUS FOR SQUARE TO ROUND OFF CENTER WITH UNI-SHEAR AT
SHEETMETAL SHOP
PER SQUARE TO ROUND OFF CENTER OFG: 4 11-MAY-83
NASSCO SHEETMETAL SHAPE 6
* 18 GAUGE GALV, SHEETMETAL
* 20'X15'TO 17' DIA. 30'L OFFSET 10'
* CUT OUT CORNER NOTCHES WITH SNIPS
* FLATTEN CORNERS AFTER CUTTING
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL 2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	MOUE UNISHEAR2 FROM TOOLROOM TO WORKTABLE	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE UNISHEAR AT WORKTABLE PROCESS F 6	A1 B0 G1 M6 X17310 A0	6.00	10860.
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C3)A1 B0 P1 A0 (12)	1.00	8 8 0 .
5	FASTEN [FLATTEN] SHEETMETAL CORNERS 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)	A1 BO G1 (A1 BO PO F6)A1 BO P1 A0 (12)	1.00	880 .
6	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	A1 BO G1 A6 BO P3 A0	1.00	110.
7	MOUE CART WITH SHEETMETAL FROM WORKTABLE TO LAPOUT	A1 BO G1 A54 BO P1 A0	1,00	570 .
			TOTAL TMU	15490 .

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

18940

File Description ? FORM LAP ENDS ON SQUARE TO ROUND OFF CENTER

Output to line-Printer <Y or N> ? N

(39, 1)

FIT • W11

OSQ2RN.M23

FORM LAP ENDS ON SQUARE TO ROUND OFF CENTER WITH LAPOUT MACHINE
AT SHEETMETAL SHOP

PER SQUARE TO ROUND OFF CENTER

OFG: 4 11-MAY-83

NASSCO SHEETMETAL SHAPE 6

* 18 GAUGE GALV. SHEETMETAL

* 20'X15' TO 17' DIA. 30'L OFFSET 10'

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 PUSH LAPOUT-SWITCH PROCESS F 2

A1 B0 G1 M1 X16 IO A0 2.00 380.

3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 3 STEPS

A6 B0 G1 M1 X0 I3 A0 1.00 110.

4 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

5 MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO HAND-ROLLER
AT WORKBENCH

A1 B0 G1 A24 B3 P1 A0 1.00 300.

TOTAL TMU 1230.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

20170

File Description? FORM COLLAR FOR SQUARE TO ROUND OFF CENTER

to line-printer <Y or N> ? N

(39, 1)

FIT W11 OSQ2RN.M24
FORM COLLAR FOR SQUARE TO ROUND OFF CENTER WITH HAND-ROLLER AT
SHEETMETAL SHOP
PER SQUARE TO ROUND OFF CENTER OFG: 4 12-MAY-83
NASSCO SHEETMETAL SHAPE 6
* 18 GAUGE GALV. SHEETMETAL
* 20' X 15' TO 17'DIA. 30'L OFFSET 10'
FITTER BEGINS AT WORKBENCH

1	PLACE SHEETMETAL FROM-CART AT WORKBENCH TO HAND-ROLLER AT WORKBENCH WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	FASTEN BOLT [ROLLS] TO SHEETMETAL2 ON HAND-ROLLER AT WORKBENCH 5 SPINS USING FINGERS F 3		
	A1 B0 G1 A1 B0 P1 F10 A0 B0 P0 A0	3.00	420.
3	CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 3		
	A1 B0 G1 M6 X0 I0 A0	3.00	240.
4	REPLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO CART AT WORKBENCH WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
5	MOUE CART WITH SHEETMETAL FROM WORKBENCH TO CORNICEBRAKE		
	A1 B0 G1. A32 B0 P1 A0	1.00	350.
		TOTAL TMU	1230.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

2 1 4 0 0

File Description ? BEND RADIUS FOR SQUARE TO ROUND OFF CENTER

to line-Printer <Y or N> ? N

(39, 1)
FIT .W11 OSQ2RN.M25
BEND RADIUS FOR SQUARE TO ROUND OFF CENTER WITH CORNICE BRAKE AT
SHEETMETAL SHOP
PER SQUARE TO ROUND OFF CENTER OFG: 4 12-MAY-83
NASSCO SHEETMETAL SHAPE 6
* 18 GAUGE GALV. SHEETMETAL
* 20'X15' TO 17'DIA. 30'L OFFSET 10'
* SET LEAF ON BRAKE WITH VISEGRIPS
FITTER BEGINS AT CORNICE BRAKE

1	POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	MOUE VISEGRIPS FROM WORKTABLE TO CORNICEBRAKE	A54 B3 G1 A54 B0 P1 A0	1.00	1130.
3	GRIP ADJUSTMENT ROD AT CORNICEBRAKE USING VISEGRIPS AT CORNICEBRAKE AND 'ASIDE	A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0	1.00	90.
4	OPERATE CORNICEBRAKE -LEVER PROCESS F 2	A1 B0 G1 M6 X42 IO A0	2.00	1000.
5	POSITION SHEETMETAL FROM CORNICEBRAKE TO CORNICEBRAKE F 66	A1 B0 G1 A1 B0 P6 A0	66.00	5940.
6	OPERATE CORNICEBRAKE-LEVER PROCESS F 66	A1 B0 G1 M6 X42 IO A0	66.00	33000.
7	REPLACE SHEETMETAL FROM CORNICEBRAKE TO CAR-i' AT CORNICEBRAKE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
8	MOUE CART WITH SHEETMETAL FROM CORNICEBRAKE TO PANBRAKE	A1 B0 G1 A10 B0 P1 A0	1.00	130.
TOTAL TMU			41790.	

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

63190

File Description ? BEND LAP ENDS FOR SQUARE TO ROUND OFF CENTER

output to line-printer (Y or N> ? N

(39, 1)

FIT :.wll

OSQ2RN.M26

BEND LAP ENDS FOR SQUARE TO ROUND OFF CENTER WITH PAN BRAKE AT
SHEETMETAL SHOP

PER-SQUARE TO ROUND OFF CENTER

OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 6

* 18 GAUGE GALV. SHEETMETAL

* 20'X15' TO 17'DIA. 30'L OFFSET 10'

* SELECT AND ADJUST FINGERS ON PAN BRAKE

FITTER BEGINS AT PANBRAKE

1 FASTEN BOLT TO PANBRAKE 5 WRIST-STROKES USING

15.16 WRENCH AT PANBRAKE AND ASIDE PF 2 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 F16)A1 B0 P1 A0 (2) 1.00 440.

2 POSITION SHEETMETAL2 FROM CART AT PANBRAKE TO PANBRAKE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 280.

3 OPERATE PANBRAKE -LEVER PROCESS F 2

A1 B0 G1 M6 X96 IO A0 2.00 2080.

4 POSITION SHEETMETAL2 FROM PANBRAKE TO PANBRAKE F 4

A1 B0 G1 A1 B0 P6 A0 4.00 360.

5 OPERATE PANBRAKE-LEVER PROCESS F 4

A1 B0 G1 M6 X96 IO A0 4.00 4160.

6 REPLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

7 MOUE CART WITH SHEETMETAL2 FROM PANBRAKE TO WORKTABLE


A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 8030.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

71220

File Description ? TACK WELD COLLAR TO SQUARE TO ROUND OFF CENTER

 Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

OSQ2RN.M28

TACK WELD COLLAR ON SQUARE TO ROUND OFF CENTER WITH TACK WELDER
AT SHEETMETAL SHOP

PER SQUARE TO ROUND OFF CENTER

OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 6

* 18 GAUGE GALV. SHEETMETAL

* 20'X15' TO 17'DIA. 30'L OFFSET 10'

* FIT & HOLD COLLAR TO ASSEMBLY WITH --

* --VISEGRIPS WHILE TACK WELDING

* COMPLETE WELDING IN WELDING AREA

* SEE OSQ2RN.M29 FOR WELDING

FITTER BEGINS AT WORKTABLE

1	MOUE VISEGRIPS. SHEETMETAL2 FROM WORKTABLE TO WELDOUT		
	A1 B0 G1 A54 B3 P1 A0	1.00	600.
2	PLACE SHEETMETAL2 FROM TABLE AT WELDOUT TO SHEETMETAL 2		
	AT WELDOUT		
	A1 B0 G1 A54 B3 P3 A0	1.00	620.
3	GRIP SHEETMETAL2 TO SHEETMETAL2 AT WELDOUT USING		
	VISEGRIPS AT WELDOUT AND ASIDE PF 10 (4 5 6 7)		
	A54 B3 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (10)	1.00	1100.
4	OPERATE TACKWELDER PROCESS F 12		
	A1 B0 G1 M6 X3 IO A0	12.00	1320.
5	MOUE VISEGRIPS , SHEETMETAL2 FROM WELDOUT TO WORKTABLE		
	A1 B0 G1 A54 B3 P1 A0	1.00	600.
	TOTAL TMU		4240.

Type D,EM, CT, EW, EX, L, LD, LS, M, T ,W <or H for help> ?

76,510

File Description ? WELD OFFSET SQUARE TO ROUND

Output to line-Printer <Y Or N> ? N

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( 39, 3)
WELD .W01 OSQ2RN.M29
WELD OFFSET SQUARE TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP
WELDING BOOTH
PER OFFSET SQUARE TO ROUND OFG: 4 18-JUL-83
WELDING NASSCO SHEETMETAL SHAPE 6
* 18 GAUGE GALV. SHEETMETAL
* 20'X15' TO 17' DIAMETER OFFSET 10'
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE.

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
  AT WORKTABLE WITH 4 STEPS
      A1 B0 G1 A6 B0 P3 A0 1.00 110.
2 FITTER MOUE CART FROM WORKTABLE TO WELDTABLE
      A1 B0 G1 A131B3 P1 A0 1.00 1370.
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
  WELDTABLE WITH 4 STEPS
      A1 B0 G1 A6 B0 P3 A0 1.00 110.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
  WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
      A3 B0 G1 M1 X0 IO A32 1.00 370.
5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
  TO ON AT WELDMACHINES
      A1 B0 G1 M1 X0 IO A1 1.00 40.
6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
  WRIST-TURN USING HAND
      A1 B0 G1 A1 B0 P1 F3 A0 B0 PO A0 1.00 70.
7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
  WELDMACHINES TO ON AT WELDMACHINES
      A1 B0 G1 M3 X0 IO A1 1.00 60.
8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
  TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2
      A3 B3 G1 A1 B0 P6 A0 2.00 280.
9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2
      A1 B0 G1 M1 X10 IO A0 2.00 260.
10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
  ASSEMBLY AT WELDTABLE F 4
      A1 B0 G1 A1 P0 P6 A0 4.00 360.
11 PULL WELDHOD FROM UP AT WELDOR TO DOWN AT WELDOR F 8
      A1 B0 G1 M1 X0 IO A1 8.00 320.
12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
  ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 4
      A1 B0 G1 A1 B6 P6 A0 4.00 600.
13 OPERATE WELD STINGER-BUTTON1 PROCESS F 18
      A1 B0 G1 M6 X81 IO A0 18.00 16020.
14 PUSH WELDHOD FROM DOWN AT WELDOR TO UP AT WELDOR F 8
      A1 B0 G1 M1 X0 IO A1 8.00 320.
15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE
  USING WIREBRUSH AT WELDTABLE AND ASIDE PF 30 ( 4 5 6 7
    ) F 6
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V O Q C R N M C Y

	A1	B0	G1	(A1	BO	P1	C1)A1	BO	P1	A0	(30)	6.00	5640.
16	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS													
		A2	BO	G2	A6	BO	P3	A0					2.00	110.
17	FITTER MOUE CART FROM WELDTABLE TO WORKTABLE													
		A2	BO	G1	A131B0	P1	A0						1000	1340.
													TOTAL TMU	27380,

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? RIVET SQUARE TO ROUND OFF CENTER

Output to line-Printer <Y or N> ? N

(39, 1)

FIT ● W11

OSQ2RN.M30

RIVET SHEETMETAL FOR SQUARE TO ROUND OFF CENTER WITH RIVET GUN AT
SHEETMETAL SHOP

PER SQUARE TO ROUND OFF CENTER

OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 6

* 18 GAUGE GALV. SHEETMETAL

* 20'X15' TO 17'DIA. OFFSET 10'

* COMPLETE RIVETING AFTER COLLAR IS WELDED

FITTER BEGINS AT WORKTABLE

1	POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS AND ASIDE	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 40 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (40)	1.00	2040.
3	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 40	A1 B0 G1 A1 B0 P6 A0	40.00	3600.
4	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 40	A1 B0 G1 M6 X6 IO A0	40.00	5600.
5	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 40	A1 B0 G1 A1 B0 P6 A0	40.00	3600.
6	OPERATE RIVETGUN AT WORKTABLE PROCESS F 40	A1 B0 G1 M6 X3 IO A0 .	40.00	4400.
7	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS	A0 B0 GO A0 B0 PO T10 A0 B0 PO A0	1.00	100.

TOTAL TMU 19480.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

95990

SHEET METAL SHAPE #6

12" x 8" to 10" DIA SQUARE to ROUND WITH 3" OFFSET

FAB	27,770	17 MIN.
MARK OUT	18360	11 MIN.
WELD	34300	20 MIN.
TOTAL TMU.	80,430	48 MIN.

File Description ? MARK OUT SQUARE TO ROUND WITH OFFSET

Output to line-Printer <Y or N> ? N

(39, 1)

FIT *W11

OSQ2RN

MARK OUT SQUARE TO ROUND OFF CENTER WITH AWL AT SHEETMETAL SHOP
PER SQUARE TO ROUND OFG: 4 25-MAY-83

NASSCO SHEETMETAL SHAPE 6

* 11 GAUGE GALV. SHEETMETAL

* 12'X8'X10' DIAMETER SQUARE TO ROUND

* WITH 3' OFFSET

* MARK OUT USING TEMPLATE

* MARK OUT COLLAR WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

- 1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.
- 2 POSITION WEIGHTS FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.
- 3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
DIGITS USING AWL AT WORKTABLE AND ASIDE
A1 B0 G1 A1 B0 P1 R16 A1 B0 P1 A0 1.00 220.
- 4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 28
A1 B0 G1 A3 B0 P6 A0 28.00 3080.
- 5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER AT WORKTABLE AND ASIDE PF 28 (4 5 6 7)
A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (28) 1.00 1160.
- 6 REPLACE WEIGHTS FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 3 STEPS F 4
A1 B0 G1 A6 B0 P3 A0 4.00 440.
- 7 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
- 8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6) 1.00 1120.
- 9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 98 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (98) 1.00 4940.
- 10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52) 1.00 2640.
- 11 MEASURE DIMENSIONS ON SHEETMETAL [FOR COLLAR] AT
WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 2
(4 5 6 7)
A1 B0 G1 (A1 H0 P1 M32)A1 B0 P1 A0 (2) 1.00 720.
- 12 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (2) 1.00 140.
- 13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 2

	A1 B0 G1 A6 B0 F6 A0	2.00	280.
14	MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (2)	1.00	400.
15	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)		
	A1 B0 G1 (A2 B0 P1 R16)A1 B0 P1 A0 (2)	1.00	4 0 0 .
16	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)		
	A1 B0 G2 (A1 B0 P1 R3)A1 B0 P1 A0 (6)	1.00	340.
17	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKFEN AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (12)	1.00	640.
18	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
19	MOVE CART FROM WORKTABLE TO 14FT. SHEAR		
	A1 B0 G1 A81 B0 P1 A0	1.00	840.
		TOTAL TMU	18360.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER

utput to line-printer <Y or N> ? N

(39, 1)

FIT *W11

OSQ2RN

SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER WITH 14FT. SHEAR
AT SHEETMETAL SHOP

PER SQUARE TO ROUND

OFG: 4 25-MAY-83

NASSCO SHEETMETAL SHAPE 6

* 11 GAUGE GALV. SHEETMETAL

* 12'X8'X10' DIAMETER SQUARE TO ROUND

* WITH 3' OFFSET

* SHEAR 1 1/2' STRIP FOR COLLAR

FITTER BEGINS AT 14FT. SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT. SHEAR TO
14FT. SHEAR WITH 4 STEPS F 2

A1	B0	G1	A6	B0	F6	A0	2.00	280.
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2 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 2

A1	B0	G1	M1	X3	IO	A0	2.00	120.
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3 POSITION SHEETMETAL FROM 14FT. SHEAR TO 14FT. SHEAR WITH
2 STEPS F 13

A1	B0	G1	A3	B0	P6	A0	13.00	1430.
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4 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 13

A1	B0	G1	M1	X3	IO	A0	13.00	780.
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5 REPLACE SHEETMETAL FROM 14FT. SHEAR TO CART AT
14FT. SHEAR WITH 4 STEPS

A1	B0	G1	A6	B0	F3	A0	1.00	110.
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6 MOUE CART FROM 14FT. SHEAR TO WORKTABLE

A1	B0	G1	A81	B3	P1	A0	1.00	870.
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TOTAL TMU							3590.
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? CUT RADIUS FOR SQUARE TO ROUND OFF CENTER

Output to line-Printer <Y or N> ? N

(39, 1)
FIT .W11 OSQ2RN
CUT RADIUS FOR SQUARE TO ROUND OFF CENTER WITH SABER-SAW AT
SHEETMETAL SHOP
PER SQUARE TO ROUND OFG: 4 25-MAY-83

NASSCO SHEETMETAL SHAPE 6
* 11 GAUGE GALV. SHEETMETAL
* 12'X8'X10' DIAMETER SQUARE TO ROUND
* WITH 3' OFFSET
* CUT RADIUS AND CORNERS
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	A1 B0 G2 A6 B0 P3 A0	2.00	220.
2	MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE SABER-SAW PROCESS F 3	A1 B0 G1 M6 X67 IO A0	3.00	2250.
4	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
5	MOVE CART FROM WORKTABLE TO 14FTHYDROPPRESSBRAKE	AL B0 G1 A96 B0 F1 A0	1.00	990.
			TOTAL TMU	5540.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

9130

File Description ? BEND RADIUS FOR SQUARE TO ROUND OFF CENTER

Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11

OSQ2RN. [REDACTED]

BEND RADIUS FOR SQUARE TO ROUND OFF CENTER WITH
14FT HYDRO-PRESS-BRAKE AT SHEETMETAL SHOP
PER SQU

OFG: 4 25-MAY-83

NASSCO SHEETMETAL SHAPE 6

* 11 GAUGE GALV. SHEETMETAL

* 12'X8'X10' DIAMETER SQUARE TO --

* --ROUND WITH 3' OFFSET

FITTER BEGINS AT 14FTHYDROPRESSBRAKE

1 POSITION SHEETMETAL FROM CART AT 14FTHYDROPRESSBRAKE
TO 14FTHYDROPRESSBRAKE WITH 4 STEPS F 2

A1 B0 G1 A6 B0 F6 A0 2.00 280.

2 PUSH 14FTHYDROESSBRAKE-FOOTPEDAL PROCESS

A1 B0 G1 M1 X24 IO A0 1.00 270.

3 POSITION SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO
14FTHYDROPRESSBRAKE WITH 3 STEPS F 25

A1 B0 G2 A6 B0 P6 A0 25.00 3500.

4 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS F 25

A1 B0 G1 M1 X24 IO A0 25.00 6750.

5 REPLACE SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO CART AT
14FTHYDROPRESSBRAKE WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 210.

6 MOUE CART FROM 14FTHYDROPRESSBRAKE TO ROLLER

A1 B0 G1 A54 B0 F1 A0 1.00 570.

TOTAL TMU 11480.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

2 0 , 6 1 0

File Description ? FORM COLLAR FOR SQUARE TO ROUND OFF CENTER

Output to line-Printer <Y or N> ? N

(39, 1)

FIT • W11

OSQ2RN.

FORM COLLAR FOR SQUARE TO ROUND OFF CENTER WITH
ROLLER (ROLL FORMER) AT SHEETMETAL SHOP
PER SQUARE TO ROUND

OFG: 4 25-MAY-83

NASSCO SHEETMETAL SHAPE 6

* 11 GAUGE GALV. SHEETMETAL

* 12'X8'X10' DIAMETER SQUARE TO ROUND--

* -- WITH 3' OFFSET

* COMPLETE IN WELD BOOTH AREA

* SEE MWELD...SEE OSQ2RN.M75

FITTER BEGINS AT ROLLER

1 POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH
4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 FASTEN NUT [ROLLS] TO SHEETMETAL AT ROLLER 3
WRIST-TURNS USING HAND AND ASIDE F 4

A1 B0 G1 A1 B0 P1 F6 A1 B0 P1 A0 4.00 480.

3 PUSH ROLLER-BUTTON PROCESS F 4

A1 B0 G1 M1 X96 I0 A0 4.00 3960.

4 POSITION SHEETMETAL [COLLAR] FROM WORKTABLE TO
SHEETMETAL [SQUARE TO ROUND] AT WORKTABLE WITH 2
STEPS F 2

A54 B-3 G1 A3 B0 P6 A0 2.00 1340.

5 REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH
4 STEPS

A54 B0 G1 A6 B0 P3 A0 1.00 640.

6 MOUE CART FROM ROLLER TO WORKTABLE

A2 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 7160.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

27,770

File Description ? WELD OFFSET SQUARE TO ROUND

utput to line-printer <Y or N> ? N

(39,101)

WELD *W01

OSQ2RN.M72

WELD OFFSET SQUARE TO ROUND WITH ARC (STICK) WELDER AT SHEETMETAL
SHOP WELDING BOOTH

PER OFFSET SQUARE TO ROUND

OFG: 4 19-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 6

* 11 GAUGE GALV. SHEETMETAL
* 12'X8'X10' DIAMETER SQUARE TO ROUND-
* -WITH 3' OFFSET X20' L
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE'

- 1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
- 2 FITTER MOUE CART FROM WORKTABLE TO WELDTABLE
A1 B0 G1 A131B3 P1 A0 1.00 1370.
- 3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
WELDTABLE WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
- 4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
A3 B0 G1 M1 X0 IO A32 1.00 370.
- 5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES
A1 B0 G1 M3 X0 IO A1 1.00 60.
- 6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4
A3 B3 G1 A1 B0 P6 A0 4.00 560.
- 7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4
A1 B0 G1 M1 X10 IO A0 4.00 520.
- 8 WELDOR FASTEN WELDROD TO STINGER AT WELDTABLE 1
WRIST-TURN USING HAND. F 16
A1 B0 G1 A1 B0 P1 F3 A0 B0 PO A0 16.00 1120.
- 9 PULL WELDHOO FROM UP AT WELDOR TO DOWN AT WELDOR F 16
A1 B0 G1 M1 X0 IO A1 16.00 640.
- 10 WELDOR POSITION STINGER FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE F 16
A1 B0 G1 A1 B0 P6 A0 16.00 1440.
- 11 OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F
12
A1 B0 G1 M6 X173IO A0 12.00 21720.
- 12 PUSH WELDHOO FROM DOWN AT WELDOR TO UP AT WELDOR F 16
A1 B0 G1 M1 X0 IO A1 16.00 640.
- 13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND
ASIDE PF 6 (4 5 6 7)
A1 B0 G1 (A1 B0 PO L16)A1 B0 P1 A0 (6) 1.00 1060.
- 14 WELDOR DEBURR WELDED ASSEMBLY AT WELDTARLE 10
ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
23 (4567)

05Q2RN M72

	A1	B0	G1	(A1	B0	P1	C10	)A1	B0	P1	A0	(23)	1.00	2800.
15	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2													
	A1	B0	G1	A6	B0	P3	A0						2.00	220.
16	FITTER MOVE CART FROM WELDTABLE TO WORKTABLE													
	A1	B0	G1	A131	B0	F1	A0						1.00	1340.
													TOTAL TMU	34300,

File Description ? WELD OFFSET SQUARE TO ROUND

Output to line-printer <Y or N> ?

SHEET METAL SHAPE # 7

7- $\frac{1}{2}$ " X 6" X 90° WITH 7- $\frac{1}{2}$ " RADIUS ELBOW

FAB	40280	24 MIN.
MARK OUT	20360	12 MIN.
TOTAL TMU.	60580	36 MIN.

File Description ? MARK OUT ELBOW (*.7) CHEEKS

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W04 ELBOW .MO1
MARK SHEETMETAL FOR ELBOW (* 7) CHEEKS WITH AWL AT SHEETMETAL
SHOP
PER ELBOW (* 7) OFG: 4 09-MAR-83

NASSCO SHEETMETAL *# 7
* U.S.S. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMEN:7 1/2'X6'X90DEGREESX7 1/2'RAD
* MARK OUT TOP & BOTTOM CHEEKS
* USING TEMPLATE

FITTER BEGINS AT WORKTABLE

1	PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	PLACE 1 WEIGHT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220 .
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (8)	1.00	1480.
4	REPLACE 1 WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
5	REPLACE 1 TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MARK CUT LINE ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 60 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (60)	1.00	3040.
7	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 38 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3 (A1 B0 P1 A0 (38)	1.00	1940.
8	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 46 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (46)	1.00	2340.
			TOTAL TMU	9570.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

File Description ? MARK OUT ELBOW THROAT & HEEL

utput to line-printer <Y or N> ? N

(39, 3)
FIT *W04 ELBOW .M02
MARK OUT SHEETMETAL FOR ELBOW THROAT & HEEL WITH AWL AT
SHEETMETAL SHOP
PER ELBOW OFG: 4 03-MAR-83

NASSCO SHEETMETAL PART * 7
* U.S.S. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMEN:7 1/2'X6'X90DEGREESX7 1/2'RAD
* LAYOUT THROAT & HEEL WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 6 (1 2 3 4 5 6 7)			
	(A1 B0 G1 A1 B0 P1 M32)A1 B0 P1 A0 (6)	1.00		2180.
2	MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (6)	1.00		340 .
3	POSITION STRAIGHT-EDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 3 (4 5 6)			
	A1 B0 G1 (A1 B0 P6)A0 (3)	1.00		230.
4	PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8			
	A1 B0 G1 A1 B0 P3 A0	3.00		480.
5	MARK SHEETMETAL FROM CORNER TEMPLATE TO SHEETMETAL 2 DIGITS USING AWL AND ASIDE PF 8 (1 2 3 4 5 6 7)			
	(A1 B0 G1 A1 B0 P1 R6)A1 B0 P1 A0 (8)	1.00		320.
6	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 50 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (540)	1.00		2540.
7	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 41 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (41)	1.00		2090.
8	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 24 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (24)	1.00		1240,
9	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 3 STEPS			
	A1 B0 G1 A6 B0 P3 A0	1.00		110.
10	MOVE CART FROM WORKTABLE TO SMALLSHEAR			
	A1 B0 G1 A67 B0 Pi A0	1.00		700.
			TOTAL TMU	10730.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR OUTLINES OF ELBOW

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W04 ELBOW .M03
SHEAR SHEETMETAL OUTLINES FOR ELBOW WITH SHEAR AT SHEETMETAL SHOP
PER ELBOW OFG: 4 09-MAR-83

NASSCO SHEETMETAL PART * 7
* U.S.S. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMEN:7 1/2'X6'X90DEGREESX7 1/2'RAD
* ROUGH CUT CHEEK RADIUS ON SHEAR
* SHEAR IS SMALL 3 FT. SHEAR
FITTER BEGINS AT SMALLSHEAR

1	POSITION 4X8 SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH.4 STEPS		
	A1 B0 G1 A6 PO P6 A0	1.00	140.
2	PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL PROCESS		
	A1 B0 G1 M1 X6 IO A0	1.00	90.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR		
	A1 B0 G1 A1 B0 P6 A0	1.00	90.
4	PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING LINES ON SHEETMETAL PROCESS F 28		
	A1 B0 G1 M1 X6 IO A0	25.00	2520.
5	PLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 3 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOUE CART FROM SMALLSHEAR TO WORKTABLE		
	A1 B0 G1 A67 B3 P1 A0	1.00	730.
	TOTAL TMU		3680.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR ELBOW RADIUS LINES

Output to Line-Printer (Y or N> ? N

(39, 3)
 FIT W04 ELBOW .M04
 SHEAR SHEETMETAL FOR ELBOW RADIUS LINES WITH UNI-SHEAR AT
 SHEETMETAL SHOP
 PER ELBOW OFG: 4 09-MAR-33

NASSCO SHEETMETAL PART * 7
 * U.S.S. CAPE COD
 * WORK ORDER 3070-339
 * SKETCH 737
 * 20 GAUGE GALV. SHEETMETAL
 * DIMEN:7 1/2'X6'X90DEGREESX7 1/2'RAD
 * FINISH SHEAR CHEEK RADIUS WITH UNI-SHEAR
 FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 3 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	MOVE UNI-SHEAR2 FROM TOOLROOM TO WORKTABLE	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE UNISHEAR ON SHEETMETAL AT WORKTABLE PROCESS F 4	A1 P0 G1 M6 X173I0 A0	4.00	7240.
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 1 CUT USING SNIPS AT WORKTABLE AND ASIDE PF 32 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (32)	1.00	1640.
5	FASTEN (FLATEN)SHEETMETAL CORNERS ON SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 32 (4 5 6 7)	A1 B0 G1 (A1 B0 PO F3)A1 B0 P1 A0 (32)	1.00	1320.
6	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	A1 B0 G1 A1 B0 P3 A0	1.00	60.
7	MOVE CART FROM WORKTABLE TO LAPOUT MACHINE	A1 B0 G1 A54 B0 P1 A0	1.00	570.
			TOTAL TMU	12910.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? FORM ELBOW LAP

Output to line-Printer <Y or N> ? N

(39, 3)

FIT .W04

ELBOW .MO5

FORM SHEETMETAL FOR ELBOW LAP WITH
LAPOUT MACHINE (ROTARY MACHINE) AT SHEETMETAL SHOP
PER ELBOW

OFG: 4 09-MAR-83

NASSCO SHEETMETAL PART * 7
* U.S.S. CAFE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GUAGE GALV. SHEETMETAL
* DIMEN:7 1/2'X6'X90DEGREESX7 1/2'RAD
* LAPOUT 1 END,2 CHEEKS,1 THROAT & 1 HEEL
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 4

A1 B0 G1 A6 B0 P3 A0 4.00 440.

2 PUSH LAPOUT-SWITCH AT LAPOUT PROCESS F 4

A1 B0 G1 M1 X16 IO A0 4.00 760.

3 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

4 MOUE CART FROM LAPOUT TO PITTSBURGH

A1 B0 G1 A6 B0 P1 A0 1.00 90.

TOTAL TMU 1400.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

17,990

File Description ? FORM PITTSBURGH LOCK ON ELBOW

utput to line-printer <Y or N> ? N

(39, 3)

FIT .W04 ELBOW .M06
FORM SHEETMETAL FOR ELBOW LOCK WITH PITTSBURGH AT SHEETMETAL SHOP
PER ELBOW OFG: 4 09-MAR-83

NASSCO SHEETMETAL FART * 7
* U.S.S. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMEN:7 1/2'X6'X90DEGREESX7 1/2'RAD
* FORM PITTSBURGH LOCK ON 1 SIDE OF MACH
* FORM EDGE ON OTHER SIDE OF MACH
FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	PUSH PITTSBURGH-BUTTON AND FORM PITTSBURGH PROCESS F 2	A1 B0 G1 M1 X32 IO A0	2.00	300.
3	PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH F 3	A1 B0 G1 M1 X0 I3 A0	3.00	100.
4	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 4 STEPS	A6 B0 G1 M1 X0 I3 A0	1.00	110.
5	PLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM PITTSBURGH TO WORKTABLE	A1 B0 G1 A54 B3 P1 A0	1.00	600.
	TOTAL TMU			1810.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

13,800

File Description ? FORM ELBOW RADIUS THROAT & HEEL

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W04

ELBOW .M07

FORM RADIUS ON ELBOW THROAT & HEEL WITH ROLLER AT SHEETMETAL SHOP
PER ELBOW OFG: 4 09-MAR-83

NASSCO SHEETMETAL PART * 7

* U.S. S. CAFE COD

* WORK ORDER 3070-339

* SKETCH 737

* 20 GAUGE GALV. SHEETMETAL

* DIMEN: 7 1/2' X 6' X 90 DEGREES X 7 1/2' RAD

* PLACE SCRAP METAL IN LOCK.

* SO ROLLER WILL NOT CLOSE GAP

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	MOVE SCRAP-SHEETMETAL FROM SCRAPBIN TO WORKTABLE		
	A54 B3 G1 A54 B3 P1 A0	1.00	1160.
3	PLACE SHEETMETAL (SCRAP STRIPS 1 FROM WORKTABLE TO SHEETMETAL (THROAT & HEEL) PITTSBURGH AT WORKTABLE F 4		
	A1 B0 G1 A1 B0 P3 A0	4.00	240.
4	FASTEN SHEETMETAL (SCRAP) TO SHEETMETAL (THROAT & HEEL) AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)		
	A1 B0 G1 (A1 B0 PO F3) A1 B0 P1 A0 (8)	1.00	360.
5	PLACE SHEETMETAL AND HAMMER FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM WORKTABLE TO ROLLER		
	A1 B0 G1 A54 B0 F1 A0	1.00	570.
7	PLACE SHEETMETAL FROM. CART AT ROLLER TO ROLLER WITH 4 STEPS		
	A1 B0 G1 A6 B0 F3 A0	1.00	110.
		TOTAL TMU	2660.

Type D, EM, CT, EX, T, W <Or H for help> ?

22,460

File Description ? FORM EDGE ON ELBOW CHEEKS

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W04

ELBOW .M08

FORM SHEETMETAL FOR ELBOW CHEEKS WITH ROLLER AT SHEETMETAL SHOP

PER ELBOW

OFG: 4 10-MAR-83

NASSCO SHEETMETAL FART * 7

* U.S.S. CAFE COD

* WORK ORDER 3070-339

* SKETCH 737

* 20 GAUGE GALV. SHEETMETAL

* DIMEN:7 1/2'X6'X90DEGREESX7 1/2'RAD

* KINK CORNER ON SHEETMETAL WITH VISEGRIPS

* DONE FOR EASE OF OPERATION

* ROLLER IS EDGE ROLLER

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 3 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	LOOSEN SHEETMETAL [SCRAP] FROM SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 L3)A1 B0 P1 A0 (8)	1.00	360 .
3	GRIP AND TWIST SHEETMETAL [CHEEKS] AT WORKTABLE 1 TWIST USING VISEGRIPS AND ASIDE F 4	A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0	4.00	360 .
4	MOVE SHEETMETAL FROM WORKTABLE TO EDGER	A1 B0 G1 A67 B0 P1 A0	1.00	700.
5	POSITION SHEETMETAL TO EDGER WITH 4 STEPS	A1 B0 G1 A6 B0 P6 A0	1.00	140.
6	OPERATE EDGER-SWITCH AT EDGER PROCESS F 4	A1 B0 G1 M6 X42 IO A0	4.00	2000.
7	MOVE SHEETMETAL FROM EDGER TO WORKTABLE	A1 B0 G1 A67 B3 P1 A0	1.00	730.
TOTAL TMU				4400.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

26,860

40280

SHEET METAL SHAPE #7

15" X 15" X 90° ELBOW WITH 15" RADIUS

<u>FAB</u>	<u>75890</u>	<u>45 MIN.</u>
<u>MARK OUT</u>	<u>22000</u>	<u>13 MIN.</u>
<u>TOTAL TMU.</u>	<u>97890</u>	<u>59 MIN.</u>

T

Please input file <ELBOW.M40 > ?

File Description ? MARK OUT CHEEKS FOR ELBOW

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W11 ELBOW .M40
MARK OUT CHEEKS FOR ELBOW WITH AWL AT SHEETMETAL SHOP
PER ELBOW OFG: 4 14-APR-83
NASSCO SHEETMETAL SHAPE 7
* HULL 414
* DRAWING 501-'W@ * V2-62001
* V6-2491
* 18 GAUGE GALV. SHEETMETAL
* 15'x15' RECT. ELBOW WITH 15' RADIUS
* MARK OUT CHEEKS WITH TEMPLATE
FITTER BEGINS AT WORKTABLE

~~DATE 05/06/01~~ WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 PLACE WEIGHTS FROM WORKTABLE TO TEMPLATE ON SHEETMETAL
AT WORKTABLE WITH 3 STEPS F 4
A1 B0 G1 A6 B0 P3 A0 4.00 440.
3 MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 (4] 5RG4} 3 7
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6) 1.00 1120.
4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE
F 8
A1 B0 G1 A1 B0 P6 A0 8.00 720.
5 FASTEN CPUNCH TO TEMPLATE AT OWKTABLE 1 STRIKE USING
HAHMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
A1 B0 G1 (A1 B0 PO F3)A1 B0 P1 A0 (8) 1.00 360.
6 REPLACE WEIGHTS FROM TEMPLATE TO WORKTABLE WITH 3 STEPS
F 4
A1 B0 G1 A6 B0 P3 A0 4.00 440.
7 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
7 USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7S)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6) 1.00 1120.
9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 60 (4 5 6 7)
A1 B0 X061 (A1 B0 P1 R3)A1 B0 P1 A0 (60) 1.00 3040.
10 MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 52 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52) 1.00 2640.

TOTAL TMU 10380,

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( 39, 3)
FIT      .W11
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ELBOW .M41

MARK OUT HEEL AND THROAT FOR ELBOW WITH AWL AT SHEETMETAL SHOP
PER ELBOW OFG: 4 14-APR-83

PER ELBOW

NASSCO SHEETMETAL SHAPE 7

* HULL 414

* DRAWING 501-062

* V2-62001

* V6-2491

* 18 GAUGE GALV. SHEETMETAL

* 15'X15' RECT. ELBOW WITH 15' RADIUS

* MARK OUT THROAT&HEEL WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7) A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (4)	1.00	1400.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AN ASIDE PF 8 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (8)	1.00	440.
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 4 A1 B0 G1 A6 B0 P6 A0	4.00	560.
4	MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4)	1.00	760.
5	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 8 A1 B0 G1 A6 B0 P6 A0	8.00	1120.
6	MARK LINES FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R6)A1 B0 P1 A0 (8)	1.00	680.
7	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND HOLD PF 4 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R16)A0 B0 P0 A0 (4)	1.00	740.
8	HOLD+MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING BW7EDPEN AT WORKTABLE AND ASIDE PF 8 (4 5 6 7) A0 B0 GO (A1 B0 P1 R6)A1 B0 P1 A0 (8)	1.00	660.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKP AT WORKTABLE AND HOLD PF 34 (4567) A1 B0 G1 (A1 B0 F1 R3)A0 B0 P0 A0 (34)	1.00	1720.
10	HOLD+MARK IDENTIFICATION INFORMATION ON SHEETMETA AT WORKTABLE E 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7) A0 B0 GO (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	2620.
11	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2 A1 B0 G1 A6 B0 P3 A0	2.00	220.
12	MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR A1 B0 G1 A67 B0 P1 A0	1.00	700.

TOTAL TMU 11620.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Type D, EM, CT, EW, EX, L, LB, LS, M, T, W (or H for help> ?

Please input file (ELBOW.M > ?

File Description ? SHEAR RADIUS ON CHEEKS FOR ELBOW

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W11 ELBOW .M43
SHEAR RADIUS ON CHEEKS FOR ELBOW WITH UNI-SHEAR AT SHEETMETAL
SHOP
PER ELBOW OFG: 4 14-AFR-83

NASSCO SHEETMETAL SHAPE 7

* HULL 414
* DRAWING 501-062
* V2-62008
* V6-2491
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' RECT. ELBOW WITH 15' RADIUS
* BEND EDGE CORNERS UP 90DEGREES FOR EDGER
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 F3 A0	2.00	220.
2	MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE UNISHEAR AT WORKTABLE PROCESS F 8	A1 B0 G1 M6 X17310 A0	8.00	14480.
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 F3 C3)A1 B0 F1 A0 (8)	1.00	600.
5	FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER A-T WORKTABLE AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F6)A1 B0 F1 A0 (8)	1.00	600.
6	GRIP AND TWIST EDGE CORNERS ON SHEETMETAL [CHEEKS] AT WORKTABLE 1 TWIST USING VISEGRIPS AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)	A1 B0 G1 (A1 B0 F3 C1)A1 B0 P1 A0 (4)	1.00	240.
7	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 F3 A0	2.00	220 .
8	MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT	A1 E0 G1 A54 B0 P1 A0	1.00	570.
			TOTAL TMU	18900.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

25060

Please input file <ELBOW.M44 > ?

File Description ? FORM LAP ENDS ON SHEETMETAL FOR ELBOW

Output to line-printer <Y or N> ? N

(391 3)

FIT • W11

ELBOW .M44

FORM LAP ENDS ON SHEETMETAL FOR ELBOW WITH LAPOUT MACHINE AT
SHEETMETAL SHOP

PER ELBOW

OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 7

* HULL 414

* DRAWING 501-062

* V2-62001

* V6-2491

* 18 GAUGE GALV. SHEETMETAL

* 15'X15' RECT. ELBOW WITH 90DEGREE RADIUS

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 4

A1 B0 G1 A6 B0 P3 A0 4.00 4 4 0 .

2 PUSH LAPOUT-SWITCH PROCESS F 4

A1 B0 G1 M1 X16 IO A0 4.00 760.

3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 3 STEPS

A6 B0 G1 M1 X0 I3 A0 1.00 110.

4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 4

A1 B0 G1 A6 B0 P3 A0 4.00 440 .

5 MOVE CART WITH SHEETMETAL FROM LAPOUT TO EDGER

A1 B0 G1 A16 H0 P1 A0 1.00 190.

TOTAL TMU 1940.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

27000

Please input file <ELBOW.M45> ?

File Description ? FORM 90DEGREE EDGE ON CHEEKS FOR ELBOW

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W11

ELBOW .M45

FORM 90 DEGREE EDGE ON CHEEKS FOR ELBOW WITH
EDGER (FLANGER) MACHINE AT SHEETMETAL SHOP
PER ELBOW

OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 7

* HULL 414

* DRAWING 501-062

* V2-62001

* V6-2491

* 18 GAUGE GALV. SHEETMETAL

* 15'X15' RECT. ELBOW WITH 15' RADIUS

* USE PREVIOUSLY TURNED UP EDGE TO --

S START METAL IN MACHINE

FITTER BEGINS AT EDGER

1 POSITION SHEETMETAL FROM CART AT EDGER TO EDGER WITH 4
STEPS F 2

A1	B0	G1	A6	B0	P6	A0	2.00	280.
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2 PUSH EDGER-SWITCH PROCESS F 2

A1	B0	G1	M1	X42	IO	A0	2.00	900.
----	----	----	----	-----	----	----	------	------

3 POSITION SHEETMETAL FROM EDGER TO EDGER WITH 3 STEPS F
2

A1	B0	G1	A6	B0	P6	A0	2.00	280.
----	----	----	----	----	----	----	------	------

4 PUSH EDGER-SWITCH PROCESS F 2

A1	B0	G1	M1	X42	IO	A0	2.00	900.
----	----	----	----	-----	----	----	------	------

5 PUSH AND GUIDE SHEETMETAL THROUGH EDGER WITH 3 STEPS

A6	B0	G1	M1	X0	I3	A0	1.00	1101
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6 REPLACE SHEETMETAL FROM EDGER TO CART AT EDGER WITH 4
STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

7 MOVE CART WITH SHEETMETAL FROM EDGER TO PITTSBURGH

A1	B0	G1	A16	B0	F1	A0	1.00	190.
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TOTAL TMU 2880.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

29880

T

Please input file <ELBOW.M46 > ?

File Description ? FORM PITTSBURGH LOCK ON THROAT & HEEL FOR ELBOW

Output to line-printer (Y or N) ? N

(39, 3)
FIT .W11 ELBOW .M46
FORM PITTSBURGH LOCK ON THROAT AND HEEL FOR ELBOW WITH PITTSBURGH
AT SHEETMETAL SHOP
PER ELBOW OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 7
* HULL 414
* DRAWING 501-062
* V2-62001
* V6-2491
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' RECT. ELBOW WITH 15' RADIUS
FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	PUSH PITTSBURGH-BUTTON PROCESS F 2		
	A1 B0 G1 M1 X32 IO A0	2.00	700.
3	PLACE SHEETMETAL FROM PITTSBURGH TO PITTSBURGH WITH 2 STEPS F 2		
	A1 B0 G1 A3 B0 P3 A0	2.00	160.
4	PUSH PITTSBURGH-BUTTON PROCESS F 2		
	A1 B0 G1 M1 X32 IO A0	2.00	700.
5	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 3 STEPS F 4		
	A6 B0 G1 M1 X0 I3 A0	4.00	440.
6	REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS F 2		
	AL B0 G1 A6 B0 P3 A0	2.00	220.
7	MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO WORKTABLE		
	A1 B0 G1 A54 B3 F1 A0	1.00	600.
	TOTAL TMU		3040.

Type D, EM, CT, EW, EX, L, LD, LS, M,T, W <or H for help> ?

32920

Please input file <ELBOW.M47 > ?

File Description ? POSITION SPACERS IN PITTSBURGH LOCKS FOR ELBOW

Output to line-Printer <Y or N> ? N

(39, 3)

FIT .W11

ELBOW .M47

POSITION SPACERS IN PITTSBURGH LOCKS FOR ELBOW WITH HAMMER AT
SHEETMETAL SHOP

PER ELBOW

OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 7

* HULL 414

* DRAWING 501-062

* V2-62001

* V6-2491

* 18 GAUGE GALV. SHEETMETAL

* 15'X15' RECT. ELBOW WITH 15' RADIUS

* PROTECT PITTSBURGH LOCKS WITH SPACERS--

* WHILE ROLLING

FITTER BEGINS AT WORKTABLE

- 1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00

•

- 2 POSITION SHEETMETAL [SPACERS] FROM WORKTABLE TO
SHEETMETAL [PITTSBURGH LOCKS] AT WORKTABLE WITH 3
STEPS F 4

A1 B0 G1 A6 B0 P6 A0 4.00

560.

- 3 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 1 STRIKE
USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (8) 1.00

360.

- 4 PLACE MASKING-TAPE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 1 STEP F 12

A1 B0 G1 A3 B0 P3 A0 12.00

960.

- 5 MOVE SHEETMETAL FROM WORKTABLE TO ROLLER

A1 B0 G1 A54 B0 P1 A0 1.00

570.

TOTAL TMU

2670.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

35,590

T

Please input file <ELBOW.M48 > ?

File Description ? FORM RADIUS ON THROAT AND HEEL FOR ELBOW

Output to line-printer (Y or N> ? N

 $(39, 3)$

FIT ● W11

ELBOW .M48

FORM RADIUS ON THROAT AND HEEL FOR ELBOW WITH
ROLL FORMER (ROLLER) MACHINE AT SHEETMETAL SHOP
PER ELBOW

OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 7

* HULL 414

* DRAWING 501-062

* V2-62001

* V6-2491

* 18 GAUGE GALV. SHEETMETAL

* 15'X15' RECT. ELBOW WITH 15' RADIUS

* CHECK RADIUS ON THROAT & HEEL WITH --

t. RADIUS ON CHEEK

FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL FROM FITTER AT ROLLER TO ROLLER WITH
3 STEPS

A1 B0 G1 A6 H0 P3 A0

1.00 110.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3
WRIST-TURNS USING HAND F 6

A1 B0 G1 A1 B0

A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0

6.00 600.

3 PUSH ROLLER-BUTTON PROCESS F 8

A1 B0 G1 M1 X96 IO A0

8.00 7920.

4 POSITION SHEETMETAL [THROAT & HEEL] FROM WORKTABLE TO
SHEETMETAL [CHEEK] AT ROLLER WITH 3 STEPS F 8

A54 B3 G1 A6 B0 P6 A0

8.00 5600.

```
5 MOVE SHEETMETAL FROM ROLLER TO WORKTABLE
```

A1 B0 G1 A54 B3 F1 A0


1.00 600.

TOTAL TMU 14830.

Type D, EM, CT, EW, EX, L, LD, LS, M, W <or H for help> ?

50420

T

Please input file  LBOW.M49 > ?

File Description ? ASSEMBLE CHEEKS, THROAT, AND HEEL FOR ELBOW

Output to line-printer <Y or N> ? N

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( 39, 3)
FIT .W11 ELBOW .M49
ASSEMBLE CHEEKS, THROAT, AND HEEL FOR ELBOW WITH HAMMER AT
SHEETMETAL SHOP
PER ELBOW OFG: 4 14-APR-83
NASSCO SHEETMETAL SHAPE 7
* HULL 414
* DRAWING 501-062
* V2-62001
* VS-2491
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' RECT. ELBOW WITH 15' RADIUS
* REMOVE SPACERS FROM PITTSBURGH LOCK
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM FITTER AT WORKTABLE TO WORKTABLE
      A1 B0 G1 A1 B0 P3 A0 1.00 60.
2 REPLACE MASKING-TAPE FROM SHEETMETAL AT WORKTABLE TO
  WORKTABLE WITH 2 STEPS F 8
      A1 B0 G1 A3 B0 P3 A0 8.00 640.
3 LOOSEN SHEETMETAL FROM SHEETMETAL AT WORKTABLE 2
  STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5
  6 7 )
      A1 B0 G1 (A1 B0 P0 L6 )A11 B0 P1 A0 (8) 1.00 600.
4 MOVE BARCLAMP FROM TOOLROOM TO WORKTABLE
      A96 B0 G1 A96 B3 P1 A0 1.00 1970.
5 POSITION SHEETMETAL [CHEEK} TO SHEETMETAL [THROAT :
  HEEL] AT WORKTABLE WITH 1 STEP F 2
      AL B0 G1 A3 B0 P6 A0 2.00 220.
6 POSITION BARCLAMP FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 6
      A1 B0 G1 A1 B0 P6 A0 6.00 540.
7 FASTEN BARCLAMP TO SHEETMETAL AT WORKTABLE 3
  WRIST-TURNS USING HAND PF 6 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 F6 )A0 B0 P0 A0 (6) 1.00 500.
8 POSITION SETTINGTOOL FROM WORKTARLE TO SHEETMETAL AT
  WORKTABLE F 40
      A1 B0 G1 A1 B0 P6 A0 40.00 3600.
9 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 40 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P0 F6 )A1 B0 F1 A0 (40) 1.00 2840.
10 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
      A1 B0 G1. (A1 B0 P0 F6 )A1 B0 P1 A0 (16) 1.00 1160.
11 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 40 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (40) 1.00 13240.
12 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
      A0 B0 GO A0 H0 P0 T10 A0 B0 P0 A0 1.00
```


TOTAL TMU

25470. --

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

75,890

SHEET METAL SHAPE # 7

15" X 40" X 90° ELBOW WITH VANE TURN

<u>FAB</u>	<u>76480</u>	<u>46 MIN.</u>
<u>MARK OUT</u>	<u>34320</u>	<u>21 MIN</u>
<u>WELD</u>	<u>215015</u>	<u>180 MIN.</u>
<u>TOTAL F.M.U.</u>	<u>325815</u>	<u>195 MIN</u>

S6242

NASSCO ANALYSIS OF ERECTION UNITS

PREPARED 09/05/82 01:20

PAGE 1

PARAMETER ENDING 03-18-83

CON	ERECTION UNIT	HULL	DESCRIPTION	ENG STRUCTURE SCHED	ACTUAL	LOFTING SCHED	ACTUAL	CHASE FLAG	START DATE TASK DATE	DRAWING INFO SUB ASSY	INFORMATION NSTLN
D	V2 1000	414	PURCHASED PREFILTERS (UNDER C/ (SEE TEQUILA) SEE M-K PRIOR TO INSTALL	NREC	NREC	NREC	NREC	Z	11/02/82 11/25/82	414-501-777- 11/25/82	- - 11/25/82
D	V2 797	414	FILTERS (ABSLT. WITH DUMMY) (PU 501-913 C/G (SEE TEQUILA) SEE M-K PRIOR TO INSTALL	NREC	NREC	NREC	NREC	Z	11/08/82 11/25/82	414-501-777- 11/25/82	- - 11/25/82
D	V2 1002	414	ABSOLUTE FLTR. (Z1-6) 501-007 (PU VENT 3RD PLATF. FR. 90-100 (SPARE SEE M-K PRIOR TO INSTALL	NREC	NREC	NREC	NREC	Z	11/15/82 12/09/82	414-501-777- 12/09/82	- - 12/09/82
D	V2 1006	414	PREFILTER (Z1-6) 501-007 (PURCH VENT 3RD PLATF. FR. 90-100 (SPAR SEE M-K PRIOR TO INSTALL	NREC	NREC	NREC	NREC	Z	11/15/82 12/09/82	414-501-777- 12/09/82	- - 12/09/82
D	V2 1008	414	PREFILTER (Z1-6) 501-011 (PU VENT. 2ND. PLATF. FR. 90-100 (SEE M-K PRIOR TO INSTALL	NREC	NREC	NREC	NREC		00/00/00 01/03/83	414-501-777- 01/03/83	- - 01/03/83

UNITS BEHIND SCHED

T

Please input file <ELBOW.M20 > ?

File Description ? MARK OUT CHEEKS FOR ELBOW WITH VANE TURNS

Output to line-printer <Y or N> ? N

(39, 3)

FIT • W09

E L B ~~0013~~ ~~0020~~

MARK OUT CHEEKS FOR RECTANGULAR ELBOW WITH VANE TURNS WITH AWL AT
SHEETMETAL SHOP
PER ELBOW

OFG: 4 11-APR-83

NASSCO SHEETMETAL SHAPE *7

* HULL 414

* DRAWING 501-062

* V2-1098

* V6-7598

* 11 GAUGE GALV. SHEETMETAL

* 15'X40' ELBOW WITH VANE TURNS

* MARK OUT CHEEKS WITH TEMPLATE

FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 6	A1 B0 G1 A6 B0 P6 A0	6.00	840.
	3 MARK LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6)	1.00	1120.
4	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 57	A1 B0 G1 A1 B0 P6 A0	57.00	5130.
5	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 57	A1 B0 G1 A1 B0 P6 A0	57.00	5130.
6	FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 57 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (57)	1.00	2320.
7	FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 57 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (57)	1.00	2320.
8	REPLACE WEIGHTS FROM TEMPLATE TO WORKTABLE WITH 3 STEPS F 6	A1 B0 G1 A6 B0 P3 A0	6.00	660.
9	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
10	HARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6)	1.00	1120.
11	HARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 48 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (48)	1.00	2440.

ELBOW M-20

12 MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 52 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52) 1.00 2640.

TOTAL TMU 24220.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

T

Please input file <ELBOW.M21 > ?

File Description ? MARK OUT THROAT AND HEEL FOR ELBOW

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W09

ELBOW

MARK OUT THROAT AND HEEL FOR ELBOW WITH AWL AT SHEETMETAL SHOP
PER ELBOW OFG: 4 11-APR-83

NASSCO SHEETMETAL SHAPE *7

* HULL 414

* DRAWING 501-062

* V2-1098

* V6-7598

* 11 GAUGE GALV. SHEETMETAL

* 15'X40' ELBOW WITH VANE TURNS

* MARK OUT WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE F 4		
	A1 B0 G1 A1 B0 P1 M32 A1 B0 P1 A0	4.00	1520.
2	MARK DIMENSIONS FROM STEEL-TAPE ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 1 6 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (16)	1.00	840.
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 8		
	A1 B0 G1 A6 B0 P6 A0	8.00	1120.
4	MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (8)	1.00	1480.
5	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4)	1.00	760.
6	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (34)	1.00	1740.
7	MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	2640.
	TOTAL TMU		10100.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

Please input file (ELBOW.M22 > ?

File Description ? MARK OUT TURN VANES FOR RECTANGULAR ELBOW

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W09 ELBOW ~~M22~~
MARK OUT TURN VANES FOR RECTANGULAR ELBOW WITH AWL AT SHEETMETAL
SHOP
PER ELBOW OFG: 4 11-APR-83
NASSCO SHEETMETAL SHAPE 7
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7598
* 11 GAUGE GALV. SHEETMETAL
* 15'X40' ELBOW WITH VANE TURNS
* MARK OUT WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE WITH 3 STEPS AND ASIDE PF 4 (
1 2 3 4 5 6 7)
(A1 B0 G1 A1 B0 P1 A6)M32A1 B0 P1 A0 (4) 1.00 740.
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE PF 12 (
4 5 6 7)
A1 B0 G1 (A1 B0 P1 A6)R3 A1 B0 P1 A0 (12) 1.00 1030.
3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 6
A1 B0 G1 A1 B0 P6 A0 6.00 540.
4 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AT WORKTABLE WITH 2 STEPS AND ASIDE
P F 6 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 A3)R16A1 B0 P1 A0 (6) 1.00 500 .
5 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE WITH 3 STEPS AND ASIDE PF 4
(4 5 6 7)
A1 B0 G1 (A1 B0 P1 A6)R16A1 B0 P1 A0 (4) 1.00 520.
6 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE WITH 3
STEPS AND ASIDE PF 46 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 A6)R3 A1 B0 P1 A0 (46) 1.00 3750.
7 MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 52 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52) 1.00 2640.
8 PEACE SHEET METAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
* MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 10640.

T

Please input file <ELBOW.M23 > ?

File Description ? SHEAR SHEETMETAL FOR REC. ELBOW WITH VANE TURNS

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W10

ELBOW

SHEAR SHEETMETAL FOR RECTANGULAR ELBOW WITH 'JANE' TURNS WITH
LARGE 14FT. SHEAR AT SHEETMETAL SHOP
PER ELBOW

OFG: 4 12-APR-83

NASSCO SHEETMETAL SHAPE 7

* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7598
* 11 GAUGE GALV. SHEETMETAL
* 15'X40' ELBOW WITH 'JANE' TURNS
* 2 FITTERS REQUIRED:
FITTER BEGINS AT 14FT.SHEAR

1	POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F 4	A1 B0 G1 A6 B0 P6 A0	4.00	560.
2	PUSH 14FT.SHEAR-FOOTPEDAL PROCESS	A1 B0 G1 M1 X3 IO A0	1.00	60.
3	POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR F 32	A1 B0 G1 A1 B0 P6 A0	32.00	2880.
4	PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 32	A1 B0 G1 M1 X3 10 A0	32.00	1920.
5	REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT 14FT.SHEAR WITH 8 STEPS F 3	A1 B0 G1 A16 B0 P3 A0	3.00	630.
6	MOVE CART WITH SHEETMETAL2 FROM 14FT.SHEAR TO NIBBLER	A1 B0 G1 A54 B0 P1 A0	1.00	570.
TOTAL TMU				6620.

Type D, EM, CT, EW, EX, L, LD, LS, M, T. W <or H for help> ?

Please input file <ELBOW.M24 > ?

File Description ? SHEAR RADIUS ON CHEEKS FOR ELBOW

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W10

ELBOW ~~M24~~

SHEAR RADIUS ON CHEEKS FOR RECTANGULAR ELBOW WITH 'JANE TURNS WITH
NIBBLER AT SHEETMETAL SHOP
PER ELBOW

OFG: 4 12-APR-83

NASSCO SHEETMETAL SHAPE 7

* HULL 414

* DRAWING 501-062

* V2-1098

* V6-7592

* 11 GAUGE GALV. SHEETMETAL

* 15'X40' ELBOW WITH VANE TURNS

* 2 FITTERS REQUIRED

FITTER BEGINS AT NIBBLER

1 POSITION SHEETMETAL FROM CART AT NIBBLER TO NIBBLER
WITH 3 STEPS F 2

A1	B0	G1	A6	B0	P6	A0	2.00	280.
----	----	----	----	----	----	----	------	------

2 PUSH NIBBLER-BUTTON PROCESS F 2

A1	B0	G1	M1	X81	IO	A0	2.00	1680.
----	----	----	----	-----	----	----	------	-------

3 POSITION SHEETMETAL FROM NIBBLER TO NIBBLER WITH 3
STEPS F 14

A1	B0	G1	A6	B0	P6	A0	14.00	1960.
----	----	----	----	----	----	----	-------	-------

4 PUSH NIBBLER-BUTTON PROCESS F 14

AL	B0	G1	M1	X81	IO	A0	14.00	11760.
----	----	----	----	-----	----	----	-------	--------

5 REPLACE SHEETMETAL FROM NIBBLER TO CART AT NIBBLER
WITH 4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

6 MOUE CART WITH SHEETMETAL FROM NIBBLER TO ROLLER

A1	B0	G1	A24	B0	P1	A0	1.00	270.
----	----	----	-----	----	----	----	------	------

TOTAL TMU 16060.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

22680

T

Please input file <ELBOW.M25 > ?

File Description ? FORM RADIUS ON THROAT & HEEL FOR ELBOW

Output to line-Printer <Y or N> ? N

(39, 3)

FIT .W09

ELBOW ~~25~~

FORM RADIUS ON THROAT AND HEEL FOR RECTANGULAR ELBOW WITH
ROLL FORMER (ROLLER) AT SHEETMETAL SHOP
PER ELBOW

OFG: 4 11-APR-83

NASSCO SHEETMETAL SHAPE 7

* HULL 414

* DRAWING 501-062

* V2-1098

* V6-7598

* 11 GAUGE GALV. SHEETMETAL

* 15'X40' REC. ELBOW WITH VANE TURNS

* CHECK THROAT AND HEEL RADIUS WITH--

x --CHEEK RADIUS

FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL2 FROM CART AT ROLLER TO ROLLER WITH 4
STEPS F 4

A1 B0 G1 A6 B0 P3 A0 4.00 440.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT ROLLER 3 SPINS
USING HAND AT ROLLER WITH 2 STEPS F 48

A1 B0 G1 A1 B0 P1 F6 A0 B0 PO A0 48.00 4800.

3 PUSH ROLLER-BUTTON PROCESS F 48

A1 B0 G1 M1 X96 I0 A0 48.00 47520.

4 REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH
4 STEPS F 4

A1 B0 G1 A6 B0 P3 A0 4.00 440.

5 MOUE CART WITH SHEETMETAL FROM ROLLER TO WORKTABLE
[WELD AREA]

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 53800.

Type D, EM, CT, EW, EX, L,LD, LS, M, T, W <or H for help> ?

76,480

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14 OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F
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ELBOW M-26

		A1 B0 G1 M6 X173I0 A0	84.00	152040.
1 5	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 90			
		A1 B0 G1 M1 X0 I0 A1	90.00	5600.
16	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 21			
		A1 B0 G1 M1 X0 I0 A1	21.00	840.
17	WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND ASIDE F 40			
		A1 B0 G1 A1 B0 P0 L16 A1 B0 P1 A0	40.00	8400.
18	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 20 ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF 8 0 (4 5 6 7)			
		A1 B0 G1 (A1 B0 P1 C24)A1 B0 P1 A0 (80)	1.00	20840.
19	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2			
		A1 B0 G1 A6 B0 P3 A0	2.00	220.
20	FITTER MOUE CART FROM WELDTABLE TO WORKTABLE			
		A1 B0 G1 A131B0 P1 A0	1.00	1340,
			TOTAL TMU	215010.

File Description ? WELD RECTANGULAR ELBOW

Output to line-minter <Y or N> ?

VOLUME TWO

WORK MANAGEMENT MANUAL
SHEETMETAL SHOP VENTILATION COMPONENTS
NASSCO

VOLUME TWO

WORK MANAGEMENT MANUAL
SHEETMETAL SHOP VENTILATION COMPONENTS
NASSCO

SHEETMETAL SHAPE #8

8x8x90° ELBOW WITH VANE TRACK

FAB	130780	78 MIN
MARK OUT	41910	25 MIN
WELD	34680	20 MIN
TOTAL TMU:	207370	124 MIN

File Description ? MARK OUT CHEEKS FOR VANE TRACK ELBOW

Output to line-Printer <Y or N> ? N

(39, 3)

FIT • W04

VNELE

MARK OUT SHEETMETAL FOR JANE TRACK ELBOW WITH AWL AT SHEETMETAL SHOP

PER VANE TRACK ELBOW

OFG: 4 1 1-MAR-83

NASSCO SHEETMETAL PART * 8

* HULL 418

* DRAWIGN 501-292

* U2-92008

* V6-1497

* 22 GAUGE GALV. SHEETMETAL

* DIMENSIONS: 8'X8'X90 DEGREES

* 8'X8' ELBOW WITH VANE TRACK

* MARK GUT ELBOW CHEEKS WITH TEMPLATE

FITTER BEGINS AT WORKTABLE

- 1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.
- 2 PLACE 1 WEIGHT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.
- 3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (8) 1.00 1480.
- 4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 16 (4 5 6)
A1 B0 G1 (A1 B0 P6)A0 (16) 1.00 1140.
- 5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 16 (4 5 6 7)
A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (16) 1.00 680.
- 6 REPLACE 1 WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.
- 7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.
- 8 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 4 (4 5 6)
A1 B0 G1 (A1 B0 P6)A0 (4) 1.00 300.
- 9 MARK SHEETMETAL FROM STRAIGHTEDGE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4) 1.00 760.
- 10 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 19 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (19) 1.00 990.
- 11 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 27 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (27) 1.00 1390.
- 12 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 (4 5 6 7

A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (34) 1.00 1740.

TOTAL TMU 8950.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Please input file <VNELBO.M02> ?

File Description ? MARK OUT THROAT & HEEL FOR VANE TRACK ELBOW

Output to line-printer (Y or N) ? N

(39, 3)
FIT .W04

VNELBO 1

MARK OUT SHEETMETAL FOR VANE TRACK ELBOW WITH AWL AT SHEETMETAL
SHOP
PER VANE TRACK ELBOW

OFG: 4 11-MAR-83

NASSCO SHEETMETAL PART *8

* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1497
* 22 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 8'X8'X90 DEGREES
* ELBOW WITH VANE TRACK
* MARK OUT THROAT & HEEL
FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 6 (1 2 3 4 5 6 7)		
	(A1 B0 G1 A1 B0 P1 M32)A1 B0 P1 A0 (6)	1.00	2180.
2	MARK LINE ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 18 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (18)	1.00	940.
	3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 5 (4 5 6)		
	A1 B0 G1 (A1 B0 P6)A0 (5)	1.00	370.
4	MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 5 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (5)	1.00	940.
5	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE F 3		
	A1 B0 G1 A1 B0 P6 A0	8.00	720.
6	MARK LINES FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AND ASIDE PF 8 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R6)A1 B0 P1 A0 (8)	1.00	680.
7	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 19 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (19)	1.00	990.
8	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 40 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (40)	1.00	2040.
9	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 38 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (38)	1.00	1940.

TOTAL TMU 10800 .

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? MARK ACCESS COVER & BACK UP PLATE

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W04

VNELBO

MARK OUT SHEETMETAL FOR ACCESS COVER & BACK UP PLATE WITH AWL AT
SHEETMETAL SHOP
PER VANE ELBOW

OFG: 4 11-MAR-33

NASSCO SHEETMETAL PART * 8

* HULL 418
* DRAWING 501-292
* V2-91006
* V6-1497
* 10 GAUGE GALV. SHEETMETAL FOR PLATE
* MARK OUT USING COVER PLATE TEMPLATE
FITTER BEGINS AT WORKTABLE

1	MOVE 10 GAUGE SHEETMETAL-SCRAP FROM SCRAPBIN TO WORKTABLE	A54 B3 G1 A54 B3 P1 A0	1.00	1160.
2	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS	A1 B0 G1 A6 B0 P1 A0	1.00	140.
3	MARK OUTLINE FROM ACCESS TEMPLATE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (4)	1.00	240.
4	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 13 (4 5 6)	A1 HO G1 (A1 B0 P6)A0 (13)	1.00	930.
5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 13 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (13)	1.00	560 .
6	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE	A1 B0 G1 A1 B0 P3 A0	1.00	60.
7	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE P1 6 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (6)	1.00	2030.
8	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (6)	1.00	340.
9	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 10 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (10)	1.00	540.
10	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 13 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (13)	1.00	690.
11	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE P1 34 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (34)	1.00	1740.
12	PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.

TOTAL TMU

8590.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? MARK OUT TURN VANES & END PIECE

Output to line-Printer <Y or N> ? N

(39, 3)
FIT .W04 VNELBO
MARK OUT SHEETMETAL FOR TURN VANES & END PIECE WITH AWL AT
SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 17-MAR-83

NASSCO SHEETMETAL PART * 8
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1497
* 22 GAUGE GALV. SHEETMETAL
* LAYOUT PIECES WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 10 (4 5 6 7) AL B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (10)	1.00	3440.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 18 (4 5 6 7) AL B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (18)	1.00	940.
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 12 (4 5 6) AL B0 G1 (A1 B0 P6)A0 (12)	1.00	360.
4	MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL. AT WORKTABLE AND ASIDE PF 12 (4 5 6 7) AL B0 G1(A1 B0 P1 R16)A1 B0 P1 A0 (12)	1.00	2200.
5	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 2 (4 5 6 7) AL B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (2)	1.00	720.
6	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 13 (4 5 6 7) AL B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (13)	1.00	690.
7	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7) AL B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (16)	1.00	840.
8	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 56 (4 5 6 7) AL B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (56)	1.00	2840.
9	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS AL B0 G1 A6 B0 P3 A0	1.00	110.
10	MOVE CART WITH SHEETMETAL FROM WORKTABLE WITH 12 STEPS TO SMALLSHEAR [SHEAR IS REALLY THE 14 FT. SHEAR] A24 B0 G1 A67 B0 P1 A0	1.00	930.

TOTAL TMU 13570.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W for H for help? ?

T

Please input file <VNELBO [REDACTED] ?

File Description ? SHEAR SHEETMETAL FOR ACCESS COVER

Output to line-printer <Y or N> ? N

(39, 3)

FIT . W05

VNELBO.M05

SHEAR 10 GAUGE SHEETMETAL FOR ACCESS COVER WITH 14 FT. SHEAR AT
SHEETMETAL SHOP

PER VANE ELBOW

OFG: 4 17-MAR-83

NASSCO SHEETMETAL SHAPE #8

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1947

* 10 GAUGE GALV. SHEETMETAL

* BACK UP PLATES & COVER PLATE

* 3'X8'X90 DEGREE ELBOW WITH VANE TRACK

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR [14 FT.
SHEAR] TO SMALLSHEAR C14 FT. SHEAR] WITH 4 STEPS

A1 B0 G1 A6 B0 P6 A0

1.00

140.

2 PTIME 3 S AT 14 FT SHEAR FOR CUTTING SHEETMETAL

1.00

33.

3 POSITION SHEETMETAL FROM SMALLSHEAR C14 FT. SHEAR] TO
SMALLSHEAR [14 FT. SHEAR] F 11

A1 B0 G1 A1 B0 P6 A0

11.00

990.

4. PTIME 33 S [11 CUTS] AT 14 FT SHEAR FOR CUTTING
SHEETMETAL

1.00

917.

5 REPLACE SHEETMETAL FROM SMALLSHEAR [14 FT. SHEAR] TO
CART AT SMALLSHEAR [14 FT. SHEAR] WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0

1.00

110.

6 MOVE CART FROM SMALLSHEAR C14 FT. SHEAR] TO SMALLSHEAR
WITH 18 STEPS

A1 B0 G1 A32 B0 P1 A0

1.00

350.

TOTAL TMU

2590.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

T

Please input file <VNELBO.M06> ?

File Description ? SHEAR 90 DEGREE ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ? N

 $(39, 3)$

FIT .W05

VNELBO [REDACTED]

SHEAR SHEETMETAL FOR 90 DEGREE TURN VANE ELBOW WITH SMALL SHEAR
AT SHEETMETAL SHOP

PER VANE-ELBOW

OFG: 4 17-MAR-83

NASSCO SHEETMETAL PART # 8

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1947

* SHEAR 22 GA & 10 GA GALV. ON 8FT. SHEAF:

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0

2.00 280 .

2 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL
PROCESS F 2

A1 B0 G1 M1 X5 I0 A0

2.00 180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 28

A1 B0 G1 A1 B0 P6 AO

28.00 2520.

4 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL
PROCESS F 30

A1 B0 G1 M1 X6 I0 A0

30.00 2700.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 3 STEPS F 2

A1 B0 G1 A16 B0 P3 A0

2.00 420.

6 MOVE CART FROM SMALLSHEAR TO WORKTABLE

A1 B0 G1 A67 B3 P1 A0

1.00 730.

TOTAL	TMU	6830.
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

3,420

T

Please input file <VNELB0.M07> ?

File Description ? SHEAR VANE ELBOW CHEER'S WITH UNI-SHEAR

Output to line-Printer <Y or N> ? N

(39, 3)

FIT .W05

VNELB0

SHEAR SHEETMETAL FOR VANE ELBOW CHEEKS WITH UNI-SHEAR AT

SHEETMETAL SHOP

PER VANE ELBOW

OFG: 4 17-MAR-83

NASSCO SHEETMETAL FART # 8

* HULL 418

* DRAWING 501-292

* V2-92003

* V6-1947

* SHEAR 22 GAUGE ELBOW CHEEKS

* SHEAR WITH UNI-SHEAR

* CUT PITTSBURGH CORNERS WITH SNIPS

FITTER BEGINS AT WORKTABLE

- 1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

- 2 MOVE UNI-SHEAR FROM TOOLROOM TO WORKTABLE

A96 B0 G1 A96 B3 P1 A0 1.00 1970.

- 3 POSITION CHISEL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE AND ASIDE PF 4 (4 5 6)

A1 B0 G1 (A1 B0 P6)A0 (4) 1.00 300.

- 4 FASTEN CHISEL TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER AND ASIDE PF 4 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (4) 1.00 200.

- 5 OPERATE UNISHEAR ON SHEETMETAL AT WORKTABLE PROCESS F
10

A1 B0 G1 Mb X173I0 A0 10.00 18100.

- 6 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
SNIPS AT WORKTABLE AND ASIDE PF 20 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 C3)A1 B0 P1 A0 (20) 1.00 1440.

- 7 FASTEN (FLATTEN) SHEETMETAL AT WORKTABLE 2 STRIKES
USING HAMMER AND ASIDE PF 28 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (28) 1.00 2000.

- 8 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

- 9 MOVE CART FROM WORKTABLE TO BARFOLDER

A1 P0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 24930.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

34,350

T

Please input file <VNELEO.M08> ?

File Description ? BEND HEMMED EDGE ON VANE ELBOW

Output to line-printer <Y or N> ? N

(39, 3)

FIT 0 W05

VNELBO

BEND HEMMED EDGE FOR VANE TRACK ELBOW WITH BAR FOLDER AT
SHEETMETAL SHOP

PER VANE ELBOW

OFG: 4 17-MAR-83

NASSCO SHEETMETAL PART #8

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1947

* 22 GAUGE GALV. SHEETMETAL

* DIMENSIONS: 8'X8'X90 DEGREES

* ELBOW WITH VANE TRACK

* BEND EDGE OVER 130 DEGREES

* BENDED EDGE IS FOR HEMMED EDGE

FITTER BEGINS AT BARFOLDER

1 PLACE SHEETMETAL2 FROM CART AT BARFOLDER TO BARFOLDER
WITH 2 STEPS F 6

A1	B0	G1	A3	B0	P3	A0	6.00	480.
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2 OPERATE BARFOLDER-LEVER PROCESS F 6

A1	B0	G1	M6	X16	I0	A0	6.00	1440.
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3 REPLACE SHEETMETAL2 FROM BARFOLDER TO CART AT BARFOLDER
F 6

A1	B0	G1	A1	B0	P3	A0	6.00	360.
----	----	----	----	----	----	----	------	------

4 MOUE CART FROM BARFOLDER TO LAPOUT

A1	B0	G1	A24	B0	P1	A0	1.00	270.
----	----	----	-----	----	----	----	------	------

TOTAL	TMU	2550.
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

36,900

Please input file <VNELBO [REDACTED] ?

File Description ? LAP OUT VANE ELBOW

Output to line-printer <Y or N> ? N

(39, 3)

FIT 0 W05

VNELBO.M09

FORM (LAPOUT) SHEETMETAL FOR 90 DEGREE VANE TRACK ELBOW WITH
LAPOUT AT SHEETMETAL SHOP

PER VANE ELBOW

OFG: 4 17-MAR-83

NASSCO SHEETMETAL FART # 8

* HULL 413

* DRAWING 501-292

* V2-92008

* V6-1947

* 22 GAUGE GALV. SHEETMETAL

* LAPOUT ONE END

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

2 PUSH LAPOUT-SWITCH PROCESS F 4

A1	B0	G1	M1	X16	I0	A0	4.00	760.
----	----	----	----	-----	----	----	------	------

3 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

4 MOVE CART FROM LAPOUT TO PITTSBURGH

A1	B0	G1	A6	B0	P1	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

TOTAL TMU 1070.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

39,970

T

Please input file (VNELBO.M10> ?

File Description ? FORM PITTSBURGH LOCK ON VANE TRACK ELBOW

Output to line-Printer (Y or N> ? N

(39, 3)
FIT .W05 VNELBO
FOR SHEETMETAL LOCK FOR ELBOW WITH VANE TRACK WITH
PITTSBURGH MACHINE AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 17-MAR-83
NASSCO SHEETMETAL PART # 8
* HULL 413
* I DRAWING 501-292
* V2-92008
* V6-1947
* 22 GAUGE GALV. SHEETMETAL
* FORM PITTSBURGH LOCK & EDGE
* PITTSBURGH IS LOCKFORMER
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.
2 PUSH PITTSBURGH-BUTTON PROCESS F 2
A1 B0 G1 M1 X32 I0 A0 2.00 700.
3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH F 3
A1 B0 G1 M1 X0 I3 A0 3.00 180.
4 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 4
STEPS -:
A6 B0 G1 M1 X0 I3 A0 1100 110.
5 REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.
4 MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO LEAFBRAKE
A1 B0 G1 A32 B0 P1 A0 1100 350.

TOTAL TMU 1560.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

39,530

W <or H for help> ? T

Please input file <VNELBO

File Description ? BEND END PIECE & FLATTEN HEMMED EDGE ON VANE TURNS

File Description ?

Output to line-printer <Y or N> ? N

(39, 3)

FIT . W05

VNELBO.M11

BEND END PIECE AND FLATTEN HEMMED EDGE ON VANE TURNS WITH

LEAF BRAKE AT SHEETMETAL SHOP

PER VANE ELBOW

OFG: 4 17-MAR-83

NASSCO SHEETMETAL PART #8

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1947

* 22 GAUGE GALV. SHEETMETAL

* DIMENSIONS: 8'X8'X90 DEGREES

* ELBOW WITH VANE TURNS

* COMPLETE BENDS OF END PIECE ON FAN BRAKE

FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO
LEAFBRAKE WITH 4 STEPS F 9

A1 B0 G1 A6 B0 P6 A0 9.00 1260.

2 OPERATE LEAFBRAKE-LEVER PROCESS F 9

A1 B0 G1 M6 X16 IO A0 9.00 2 1 6 0 .

3 REPLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LEAFBRAKE
F 9

A1 B0 G1 A1 B0 P3 A0 9.00 540.

4 MOVE CART FROM LEAFBRAKE TO (TABLE AT 8FT.)
HYDROPRESS

A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 4530.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>. ?

44,060

T

Please input file <VNELBO. [REDACTED] ?

File Description ? BEND TURN VANES FOR ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W05

VNELBO.M12

BEND TURN VANES FOR ELBOW WITH VANE TRACK WITH
8 FT. HYDRAULIC PRESS BRAKE AT SHEETMETAL SHOP
PER VANE ELBOW

OFG: 4 17-MAR-83

NASSCO SHEETMETAL PART #8

* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1947
* 22 GAUGE GALV. SHEETMETAL
* DIMENSIONS: 8'X8'X90DEGREES
* ELBOW WITH TURN VANE
* USE LAYOUT ON 'JANE TRACK FOR BEND RADIUS
* HYDROPRESS IS 8FT HYDRAULIC PRESS BRAKE
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT HYDROPRESS TO TABLE AT
HYDROPRESS WITH 3 STEPS

A96 B0 G1 A6 B0 P3 A0 1.00 1060.

2 PLACE SHEETMETAL FROM TABLE AT HYDROPRESS TO
HYDROPRESS F 6

A1 B0 G1 A1 B0 P3 A0 6.00 360.

3 OPERATE HYDROPRESS-FOOTPEDAL PROCESS F 43

A1 B0 G1 M6 X5 IO A0 48.00 4720.

4 REPLACE SHEETMETAL2 FROM HYDROPRESS TO TABLE AT
HYDROPRESS WITH 3 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

5 REPLACE SHEETMETAL FROM TABLE AT HYDROPRESS TO CART AT
HYDROPRESS WITH 3 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM TABLE AT HYDROPRESS TO PANBRAKE

A1 B0 G1 A81 B0 P1 A0 1.00 840.

TOTAL TMU 9200.

Type D, EW, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

53,260

Please input file <VNELBO.

File Description ? BEND THROAT, HEEL & END PIECE FOR VANE ELBOW

Output to line-printer (Y or N) ? N

(39, 3)

FIT .W05

VNELBO.M13

BEND SHEETMETAL THROAT, HEEL & END PIECE FOR VANE TRACK ELBOW
WITH FAN BRAKE AT SHEETMETAL SHOP
PER VANE ELBOW

OFG: 4 17-MAR-83

NASSCO SHEETMETAL PART #8

* HULL 418

* DRAWING 501-292

* V2-92008

* 116-1947

* COMPLETE BEND IN END PIECE

* BEND THROAT & HEEL FOR 8X8X90DEGREES

* ELBOW WITH VANE TURN

FITTER BEGINS AT PANBRAKE

- 1 POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE
WITH 4 STEPS F 3

A1 B0 G1 A6 B0 P6 A0 3.00 420.

- 2 FASTEN SHEETMETAL (BOLT) TO PANBRAKE (FINGER) AT
PANBRAKE 5 WRIST-STROKES USING 15,16WRENCH AT PANBRAKE
AND ASIDE PF 2 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 F16)A1 B0 P1 A0 (2)1 1.00 440.

- 3 FASTEN SHEETMETAL (NUT) TO PANBRAKE (TABLE) AT
PANBRAKE 3 WRIST-STROKES USING HAND

A1 B0 G1 A1 B0 P1 F10 A0 B0 P0 A0 1.00 140.

- 4 OPERATE PANBRAKE-LEVER AT PANBRAKE PROCESS F 3

A1 B0 G1 M6 X95 IO A0 3.00 3120.

- 5 POSITION SHEETMETAL FROM PANBRAKE TO PANBRAKE F 6

A1 B0 G1 A1 B0 F6 A0 6.00 540.

- 6 OPERATE PANBRAKE-LEVER AT PANBRAKE PROCESS F 6

A1 B0 G1 M6 X96 IO A0 6.00 6240.

- 7 PLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE
WITH 4 STEPS F 3

A1 B0 G1 A6 B0 P3 A0 3.00 330.

- 8 MOUE CART FROM PANBRAKE TO WELDOUT

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 11830.

Type D, EM, CT, EW, EX, L, LD, LS, T, W (or H for help) ?

65,090

Please input file <VNELBO.M14> .?



File Description ? TACK WELD VANE TRACK ASSEMBLY FOR ELBOW

Output to line-Printer <Y or N> ? N

(39, 3)

FIT .W05

V N E L B O

TACK WELD VANE TRACK ASSEMBLY FOR ELBOW WITH TACK WELDER AT
SHEETMETAL SHOP

PER VANE ELBOW

OFG: 4 17-MAR-83

NASSCO SHEETMETAL FART #3

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1947

* 22 GAUGE GALV. SHEETMETAL

* DIMENSIONS: 8'X8'X90DEGREES

* ELBOW WITH VANE TRACK

* TACK WELD 6 VANE TURNS TO VANE TRACK

FITTER BEGINS AT WELDOUT

1 PLACE SHEETMETAL2 FROM CART AT WELDOUT TO WELDOUT WITH
4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	1-10.
----	----	----	----	----	----	----	------	-------

2 POSITION SHEETMETAL2 FROM WELDOUT TO SHEETMETAL2 AT
WELDOUT F 7

A1	B0	G1	A1	B0	P6	A0	7.00	630.
----	----	----	----	----	----	----	------	------

3 OPERATE TACKWELDER AT WELDOUT PROCESS F 36

A1	B0	G1	M6	X3	IO	A0	36.00	3960.
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4 REPLACE SHEETMETAL2 FROM WELDOUT TO CART AT WELDOUT
WITH 4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

5 MOVE CART FROM WELDOUT TO SPOTWELDER

A1	B0	G1	A81	B0	P1	A0	1.00	840.
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TOTAL TMU							5650.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

70,740

INVALID ENTRY IN CSCAN

%Invalid command.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? T

'please input file <VNELBO,M15> ?

File Description ? SPOT WELD ACCESS COVER TO BACK UP PLATE

Output to line-printer <Y or N> ? N

(3 9 , 3)

1 FIT .W05 V N E L B O
WELD ACCESS COVER TO BACK UP PLATE FOR VANE TRACK ELBOW WITH
SPOT WELDER AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 17-MAR-83

NASSCO SHEETMETAL FART #8
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1947
* SPOT WELD ACCESS COVER BACK UP PIECES
* TO ELBOW CHEEK
* FOR *'X8'X90DEGREE ELBOW WITH VANE TRACK
* FOR OTHER WELDIING SEE MWELD
FITTER BEGINS AT SPOTWELDER

1.POSITION SHEETMETAL2 FROM CART AT SPOTWELDER TO
SPOTWELDER F 4

A1	B0	G1	A1	B0	P6	A0	4.00	360.
----	----	----	----	----	----	----	------	------

2 OPERATE SPOTWELDER-FOOTPEDAL PROCESS F 19

A1	B0	G1	M6	X6	10	A0	19.00	2660.
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3 REPLACE SHEETMETAL2 FROM SPOTWELDER TO CART AT
SPOTWELDER WITH 4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	11.0
----	----	----	----	----	----	----	------	------

4 MOVE CART FROM SPOTWELDER TO WORKTABLE

A1	B0	G1	A54	B3	P1	A0	1.00	600.
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TOTAL TMU 3730.

Type D,DE,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

74,470

Please input file <VNELBO.M17> ?

'File Description ? WELD ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ? N

(39 , 1)

WELD .W01

VNELBO.M17

WELD VANE TRACK ELBOW WITH TIG-WELDER AT SHEETMETAL SHOP

WELDING BOOTH

PER VANE TRACK ELBOW

OFG: 4 22-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 8

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1947

* 22 GAUGE GALV. SHEETMETAL

* 8'X8'X90 DEGREES WITH VANE TRACK--

* --WITH 6 TURN VANES

* TACK WELD VANE TRACK WITH 1' TACK

* WELDING DONE IN WELD BOOTH AREA

* WELDOR PERFORMS THE WORK

* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FITTER MOUE CART FROM WORKTABLE TO WELDTABLE

A1 B0 G1 A131B3 P1 A0 1.00 1370.

3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
WELDTABLE WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS

A3 B0 G1 M1 X0 IO A32 1.00 370.

5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
TO ON' AT WELDMACHINES

A1 B0 G1 M1 X0 IO A1 1.00 40.

6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHIN 1
WRIST-TURN USING HAND

A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 1.00 70.

7 -WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES

A1 B0 G1 M3 X0 IO A1 1.00 60.

8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE

A3 B3 G1 A1 B0 P6 A0 1.00 140.

9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS

A1 B0 G1 M1 X10 IO A0 1.00 130.

10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE F 52

A1 B0 G1 A1 B0 P6 A0 52.00 4680.

11 FULL WELDHOO FROM UP AT WELDOR TO DOWN AT WELDOR F 16

A1 B0 G1 M1 X0 IO A1 16.00 640.

12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL

ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 52				
	A1 B0 G1 A1 B6 P6 A0	52.00	7800.	
13	OPERATE WELD STINGER-BUTTON1 PROCESS F 17			
	A1 B0 G1 M6 X31 IO A0	17.00	15130.	
14	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 16			
	A1 B0 G1 M1 X0 IO A1	16.00	6 4 0 .	
-	15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10			
	ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF			
	1 4 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 C10)A1 B0 P1 A0 (14)	1.00	1720.	
16	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT			
	WELDTABLE WITH 4 STEPS			
	A1 B0 G1 A6 B0 P3 A0	1.00	110.	
17	FITTER MOUE CART FROM WELDTABLE TO WORKTABLE			
	A1 B0 G1 A131B0 F1 A0	1.00	1340.	
TOTAL TMU			34680.	

File Description ? WELD ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ?

Please input file <VNE L B O> ?

File Description ? ASSEMBLE CHEEKS,THROAT & HEEL FOR VANE TRACK ELBOW

File Description ?

Output to line-Printer <Y or N> ? N

(39,3)
FIT .W04 V N E L B O
ASSEMBLE SHEETMETAL FOR CHEEKS, THROAT & HEEL IN VANE ELBOW WITH
HAMMER AT SHEETMETAL SHOP
PER 'JANE ELBOW OFG: 4 17-MAR-83
NASSCO SHEETMETAL PART # 8
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1947
* ASSEMBLE ELBOW & INSTALL VANE TRACK
* 22 GAUGE GALV. SHEETMETAL
* DIMEN:'8'X8'X90DEGREES WITH VANE TRACK
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	POSITION SHEETMETAL (CHEEK #1) FROM WORKTABLE TO SHEETMETAL (THROAT&HEEL) AT WORKTABLE WITH 3 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
3	FASTEN SHEETMETAL (PITTS. LOCK) ON SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND HOLD F 12		
	A1 B0 G1 A1 B0 P0 F3 A0 B0 P0 A0	12.00	720.
4	FASTEN SHEETMETAL (PITTS LOCK) ON SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AND ASIDE PF 13 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 F32)A1 B0 P1 A0 (13)	1.00	4330.
5	POSITION SHEETMETAL (VANE TRACK) FROM WORKTABLE TO SHEETMETAL AT WORKTABLE		
	A1 B0 G1 A1 B0 P6 A0	1.00	90.
6	POSITION SHEETMETAL (CHEEK #2) FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS		
	A1 B0 G1 A3 B0 P6 A0	1.00	110.
7	FASTEN SHEETMETAL (PITTS LOCK) ON SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND HOLD F 12		
	A1 B0 G1 A1 B0 P0 F3 A0 B0 P0 A0	12.00	720. (
8	FASTEN SHEETMETAL (PITTS LOCK) ON SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AND ASIDE PF 13 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 F32 A1 B0 P1 A0 (13)	1.00	4330.

TOTAL TMU 10880.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W for H for help? ?

85130

File Description ? TACK WELD-VANE TRACK TO ELBOW

Output to line-printer <Y or N> ? N

(39, 3)

.W04 V N E L B O
TACK WELD VANE TRACK ON ELBOW WITH TACK WELDER AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 17-MAR-83

NASSCO SHEETMETAL PART # 8

* HULL 418

* DRAWING 1-292

* V2-92008

* V6-1947

* 22 GAUGE GALV. SHEETMETAL

* DIMENSIONS:8'X8'X90 DEGREES

* ELBOW WITH VANE TRACK

* TACK WELD 'JANE TRACK TO INSIDE OF ELBOW

* OTHER WELDING SEE MWELD

FITTER BEGINS AT WORKTABLE

1 MOVE SHEETMETAL2 FROM WORKTABLE TO WELDOUT

A1 B0 G10 A54 B3 F1 A0 1.00 600.

2 PLACE SHEETMETAL2 FROM FITTER TO WELDOUT WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

3 OPERATE TACKWELDER ON SHEETMETAL PROCESS F 1b

A1 B0 G1 M6 X3 IO A0 16.00 1760.

4 MOVE SHEETMETAL2 FROM WELDOUT TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 3070.

Type D,EM,GT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

88,200

Please input file <VNELBO ?

File Description ? DRILL & TAP-MAKE GASKET FOR ACCESS PLATE

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W05

VENLBO.M19

TAP AND DRILL SHEETMETAL FOR MAKING GASKET FOR ACCESS PLATE WITH
TAPING MOTOR AT SHEETMETAL SHOP

PER VANE ELBOW

OFG: 4 18-MAR-83

NASSCO SHEETMETAL SHAPE #8

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1947

* 10 GAUGE GALV. ACCESS PLATE

* FOR 8'X8'X90 DEGREE 'JANE TRACK ELBOW

FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL [ACCESS COVER] TO SHEETMETAL [ELBOW
ASSEMBLY] AT WORKTABLE WITH 2 STEPS

A1 B0 G1 A3 B0 PS A0 1.00 110.

2 GRIP SHEETMETAL [ACCESS PLATE & ASSEMBLY] AT WORKTABLE
USING CCLAMPS AND HOLD

A1 B0 G1 A1 B0 P3 C1 A0 B0 P0 A0 1.00 270.

3 MOVE TAPINGMOTOR FROM TOOLROOM TO WORKTABLE

A96 B0 G1 A96 B3 P1 A0 1.00 1970.

4 FASTEN 7,32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3
WRIST-TURNS USING CHUCKKEY AND ASIDE

A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140 .

5 PLACE DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE

A1 B0 G1 A1 B0 P3 A0 1.00 30.

6 OPERATE DRILLMOTOR ON SHEETMETAL AT WORKTABLE PROCESS F
13

A1 B0 G1 M6 x6 I0 A0 13.00 1820.

7 [UN] GRIP SHEETMETAL [ACGESS PLATE & ASSEMBLY AT
WORKTABLE USING CCLAMPS AND ASIDE

A1 B0 G1 A1 B0 P3 C1 A1 B0 Pi A0 1.00 90.

8 FASTEN 1 / 4TAP FROM WORKTABLE TO TAPINGMOTOR AT
WORKTABLE 3 WRIST-STROKES USING CHUKKEY AND ASIDE

A1 B0 G1 A1 B0 P3 F10 A1 B0 P1 A0 1.00 180.

9 OPERATE DRILLMOTOR [TAPING MOTOR] ON SHEETMETAL AT
WORKTABLE PROCESS F 13

A1 B0 G1 M6 X6 I0 A0 13.00 1820.

10 FASTEN S.16DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3
WRIST-STROKES USING CHUCKKEY AND ASIDE

A1 B0 G1 A1 B0 P3 F10 A1 B0 P1 A0 1.00 180.

11 OPERATE DRILLMOTOR ON SHEETMETAL AT WORKTABLE PROCESS
13

A1 B0 G1 M6 x6 I0 A0 13.00 1820.

12 MOVE SHEETMETAL [ACCESS PLATE] AND BLACKPEN [INK PEN]
FROM WORKTABLE TO GASKET-CUTTING-TABLE

A1 B0 G1 A152B0 P1 A0 1.00 1550.

13 MOVE UTILITY KNIFE, 3 / B HOLE PUNCH AND FROM

TOOLROOM TO GASKET-GUTTING-TAELE

	A96 B0 G1 A96 B0 P1 A0	1.00	1940.
14	PLACE SHEETMETAL2 [ACCESS COVER] FROM FITTER AT GASKET-GUTTING-TABLE TO GASKET-CUTTING-TABLE		
	A1 B0 G1 A1 B0 P3 A0	1.00	60.
15	PLACE RUBBER FROM SHELF AT GASKET-CUTTING-TABLE TO GASKET-CUTTING-TABLE		
	A1 B0 G1 A1 B0 P3 A0	1.00	60.
16	PLACE SHEETMETAL2 [ACCESS COVER] FROM GASKET-GUTTING-TABLE TO RUBBER AT GASKET-GUTTING-TABLE		
	A1 B0 G1 A1 B0 P3 A0	1.00	60.
17	CUT RUBBER TRACING SHEETMETAL2 [ACCESS COVER] AT GASKET-GUTTING-TABLE 1 GUT USING UTILITY-KNIFE AND ASIDE PF 4 (4 5 6 7)		
	A96 B0 G1 (A96 B0 P3 C1)A1 B0 P1 A0 (4)	1.00	4990.
18	MARK HOLES ON RUBBER AT GASKET-GUTTING-TABLE 1 DIGIT USING BLACKPEN [INKPEN} AND ASIDE PF 13 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 HO P1 A0 (13)	1.00	590.
19	POSITION 3 / 8 HOLE PUNCH FROM GASKET-GUTTING-TABLE TO RUBBER AT GASKET-CUTTING-TABLE AND ASIDE PF 13 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P6 A0)	1.00	930.
20	FASTEN HOLE PUNCH TO RUBBER AT GASKET-CUTTING-TABLE 13 STRIKES USING Mallet AT GASKET-CUTTING-TABLE AND ASIDE PF13 (4567)		
	A1 B0 G1 (A1 B0 P0 F32)A1 B0 P1 A0 (13)	1.00	4330,
21	MOVE HOLE PUNCH , UTILITY-KNIFE , AND Mallet FROM GASKET-CUTTING-TABLE TO TOOLROOM		
	A1 B0 G1 A95 B0 P1 A0	1.00	990.
22	MOVE GLUE FROM TOOLROOM TO WORKTABLE		
	A1 B0 G1 A96 B3 P1 A0	1.00	1020.
23	MOVE RUBBER , SHEETMETAL2 [ACCESS COVER] FROM GASKET-CUTTING-TABLE TO WORKTABLE		
	A152B3 A152B3 P1 A0	1.00	3090.
24	DEBURR SHEETMETAL [ACCESS COVER] AT WORKTABLE 1 ARM-STROKE USING FILE AND ASIDE PF 25 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 C1)A1 B0 F1 A0 (25)	1.00	790.
25	GRIP GLUE TO RUBBER AT WORKTABLE USING HAND		
	A1 B0 G1 A1 B0 P1 C1 A0 B0 P0 A0	1.00	50.
26	WIFE GLUE TO RUBBER AT WORKTABLE 1 SQ.FT. USING BRUSH AND ASIDE		
	A96 B0 G1 A96 B3 P1 S10-A1 B0 P1 A0	1.00	2090.

TOTAL TMU 30900.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

179,100

Please input file <VNELBO.M20> ?

File Description ? ASSEMBLE END PIECE TO ELBOW WITH VANE TRACK

Output to line-Printer <Y or N> ? N

(39, 3)
 FIT .W09 VNELBO
 ASSEMBLE END PIECE FOR VANE TRACK ELBOW WITH RIVET GUN-AT
 SHEETMETAL SHOP
 PER VANE ELBOW OFG: 4 18-MAR-83

NASSCO SHEETMETAL SHAPE #8

- * HULL 418
- * DRAWING 501-292
- * V2-92008
- * V6-1947
- * 22 GAUGE GALV. SHEETMETAL
- * 8'X8'X90 DEGREE ELBOW WITH VANE TRACK
- * FASTEN END PIECE TO ELBOW WITH RIVETS

FITTER BEGINS AT WORKTABLE

- 1 PLACE SHEETMETAL END PIECE] FROM WORKTABLE TO
 SHEETMETAL [ELBOW] AT WORKTABLE
 A1 B0 G1 A1 B0 P3 A0 1.00 60.
- 2 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL
 [END PIECE] AT WORKTABLE AND ASIDE PF 4 (4 5 6)
 A1 B0 G1 (A1 B0 P3)A0 (4) 1.00 180.
- 3 MARK RIVET HOLES ON SHEETMETAL AT WORKTABLE 1 DIGIT
 USING BLACKPEN AND ASIDE PF 24 (4 5 6 7)
 A1 B0 G1 (A1 B0 P1 R3)A1 B0 F1 A0 (24) 1.00 1240.
- 4 PLACE 5,32DRILL-BIT FROM WORKTABLE TO DRILLMOTOR
 A1 B0 G1 A1 B0 P3 A0 1.00 60.
- 5 FASTEN NUT [DRILLBIT] TO DRILLMOTOR AT WORKTABLE 3
 WRIST-TURNS USING WRENCH [CHUCKKEY] AT WORKTABLE AND
 AS IDE
 A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.
- 6 OPERATE DRILLMOTOR ON SHEETMETAL AT WORKTABLE PROCESS F
 24
 A1 B0 G1 M6 X6 IO A0 24.00 3360.
- 7 PLACE RIVETS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
 F 24
 A1 B0 G1 A1 B0 P3 A0 24.00 1440.
- 8 OPERATE RIVETGUN ON SHEETMETAL AT WORKTABLE PROCESS F
 24
 A1 B0 G1 MS X3 IO A0 24.00 2640.
- 9 PLACE SHEETMETAL [ACCESS COVER] FROM WORKTABLE TO
 SHEETMETAL [ELBOW] AT WORKTABLE WITH 2 STEPS
 A1 B0 G1 A3 B0 P3 A0 1.00 80.
- 10 MOVE BOLTS FROM TOOLROOM TO WORKTABLE
 A96 B0 G1 A96 B3 P1 A0 1.00 1970.
- 11 POSITION BOLT FROM WORKTABLE TO SHEETMETAL [ELBOW] AT
 WORKTABLE
 A1 B0 G1 A1 B0 P3 A0 1.00 90.
- 12 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS
 USING WRENCH AT WORKTABLE AND ASIDE
 A1 B0 G1 A1 B0 P3 F24 A1 B0 P1 A0 1.00 320.

13 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

A0	B0	G0	A0	30	P0	T10	A0	B0	P0	A0	1.00	1.00
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TOTAL	TMU	116801
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Type D,EM,CT,EW,EX,L,LD,LS,T,W <or H for help> ?

130780'

8

SHEET METAL SHAPE

22" X 12" X 90° ELBOW WITH VANE TRACK

<u>FAB</u>	<u>290810</u>	<u>174.</u>
<u>MARK OUT</u>	<u>87880</u>	<u>53.</u>
<u>WELD</u>	<u>45000</u>	<u>26</u>
<u>TOTAL T.M.U.</u>	<u>425690</u>	<u>255 MIN.</u>

File **Description** ? MARK OUT CHEEKS FOR 22'X12' VANE TRACK. ELBOW

output to line-Printer <Y or N> ? N

(3 9 , 3)

FIT .W07

VNELBO.M30

MARK OUT SHEETMETAL FOR VANE TRACK ELBOW CHEEKS WITH AWL AT
SHEETMETAL SHOP

PER VANE ELBOW

OFG: 4 23-MAR-83

NASSCO SHEETMETAL SHAPE 88

* HULL 418

* DRAWING 501-292

* V2-92007

* V6-1914

* 18 GAUGE GALV. SHEETMETAL

* 22'X12' ELBOW WITH VANE TRACK

* MARK OUT CHEEKS WITH TEMPLATE

FITTER BEGINS AT' WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 2

A1 B0 G1 A3 B0 P6 A0 2.00 220.

2 POSITION 2 WEIGHTS FROM WORKTABLE TO TEMPLATE AT
WORKTABLE WITH 3 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 280.

3 MARK OUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AND ASIDE PF 16 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (16) 1.00 2920.

4 POSITION CPUNCH FROM WORKTABLE 1-a TEMPLATE AT WORKTABLE
F 24

A1 B0 G1 A1 B0 P6 A0 24.00 2160.

5 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING
HAMMER AND ASIDE PF 24 (4 5 6 7)

A1 B0 G1 (A1 B0 PO F3)A1 B0 P1 A0 (24) 1.00 1000.

6 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 6

A1 B0 G1 A1 B0 P6 A0 6.00 540.

7 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AND ASIDE PF 6 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6) 1.00 1120.

8 POSITION ACCESS TEMPLATE FROM WORKTABLE TO SHEETMETAL
A1- WORKTABLE FOR ONE CHEEK ONLY

A1 B0 G1 A1 B0 P6 A0 1.00 90.

9 POSITION CPUNCH FROM WORKTABLE 1-a TEMPLATE AT WORKTABLE
F 4

A1 B0 G1 A1 B0 P6 A0 4.00 360.

10 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING
HAMMER AND ASIDE. PF 4 (4 5 6 7)

A1 B0 G1 (A1 B0 PO F3)A1 B0 P1 A0 (4) 1.00 200.

11 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 4

A1 B0 G1 A1 B0 P6 A0 4.00 360.

12 MARK LINES ON SHEETMETAL FROM STRAIGHT EDGE TO
SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE
PF 4(4 5 6 7)

A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4) 1.00 760.

13 MARK cut LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING

	DESCRIPTION	TIME	TIME
	REDPEN AT WORKTABLE AND ASIDE PF 24 (4 5 6 7)		
14	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND HOLD PF (4 5 6 7 8 9)	1.00	1240.
15	MOVE BLACKPEN FROM FITTER AT WORKTABLE TO SHEETMETAL AT WORKTABLE	1.00	70.
16	HARK IDENTIFICATION INFORMATION SHEETMETAL AT WORKTABKE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)	1.00	40.
17	REPLACE 2 WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2	1.00	2640.
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	2.00	220.
	TOTAL TMU		14220.

Please input file <VNELBO.M31> ?

File Description ? MARK OUT 1/2 THROAT&HEEL FOR 22X12 V.T. ELBOW

Output to line-printer <Y or N> ? N

(3 9 , 3)

FIT .W07 VNELBO.M31
MARK OUT SHEETMETAL FOR VANE TRACK ELBOW THROAT & HEEL WITH AWL
AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 23-MAR-83
NASSCO SHEETMETAL SHPAE #8
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12' ELBOW WITH VANE TRACK
* USE TEMPLATE FOR HALF WITH BEND
FITTER BEGINS A1' WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2	A1 B0 G1 A1 B0 P6 A0	2.00	180.
2	PLACE 2 WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL A-f WORKTABLE 5 DIGITS USING AWL AND ASIDE PF -4 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4)	1.00	760.
4	POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F 8	A1 B0 G1 A1 B0 P6 A0	8.00	720.
5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A0 B0 PO F3)A1 B0 P1 A0 (8)	1.00	360.
6	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (8)	1.00	440.
7	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 48 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (48)	1.00	2440.
8	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 52 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	2640.
9	REPLACE 2 WEIGHTS FROM TEMPLATE AT WORK-TABLE TO WORKTABLE WITH 3 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
		TOTAL TMU		7980.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

22200

File Description ? LAYOUT 1/2 THROAT & HEEL WITHOUT TEMPLATES

output to line-printer <Y or N> ? N

(39 , 3)

FIT .W06

VNELBO.M32

MARK OUT SHEETMETAL FOR THROAT & HEEL WITH AWL (NO TEMPLATES) AT SHEETMETAL SHOP

ER VANE ELBOW

OFG: 4 21-MAR-83

NASSCO SHEETMETAL SHAPE #8

* HULL 418

* DRAWING 501-292

* V2-92007

* V6-1914

* 18 GAUGE GLAV. SHEETMETAL

* 22'X12' ELBOW WITH VANE TRACK

* MARK OUT HALF WITHOUT BEND

FITTER BEGINS AT WORKTABLE

- 1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORK-1-ABLE AND ASIDE PF 8 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (8) 1.00 2760 .
- 2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 8 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (8) 1.00 440 .
- 3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE F 4
A1 B0 G1 A1 B0 P6 A0 4.00 360 .
- 4 MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4) 1.00 760 .
- 5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8
A1 B0 G1 A1 B0 P6 A0 8.00 720 .
- 6 MARK CORNERS FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL A1' WORKTABLE AND ASIDE PF 8 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R6)A1 B0 P1 A0 (8) 1.00 680 .
- 7 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8
A1 B0 G1 A1 B0 P6 A0 8.00 720 .
- 8 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)
A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (8) 1.00 360 .
- 9 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN A-i- WORKTABLE AND ASIDE PF 8 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (8) 1.00 440 .
- 10 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 48 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (48) 1.00 2440 .
- 11 MARK IDENTIFICATION ON SHEETMETAL A1- WORKTABLE 1 DIGIT' USING BLACKPEN AT WORKTABLE AND ASIDE' PF 52 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52) 1.00 2640 .

TOTAL TMU 12320.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

34520

DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 20 (4
5 6 7)

13 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING BLACKPEN AT WORKTABLE AND ASIDE PF 61 (4 5 6 7

A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (20) 1000 3640.
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (61) 1.00 11020.

TOTAL TMU 417209.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

76240

12	MOVE CART FROM WORKTABLE TO SMALLSHEAR [14 FT. SHEAR]	A1	B0	G1	A6	B0	P3	A0	4.00	440.
	WITH 47 STEPS									
		A1	B0	G1	A81	B0	P1	A0	1.00	840.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

89880

Please input file <VNELBO.M35> ?

File Description ? SHEAR 11 GAUGE SHEETMETAL ACCESS COVER & PLATE

Output to line-printer <Y or N> ? N

(3 9 , 3)

FIT ● W07

VNELBO.M35

SHEAR 11 GAUGE SHEETMETAL FOR ACCESS COVER AND PLATE WITH
14FT. SHEAR AT SHEETMETAL SHOP
PER VANE ELBOW

OFG: 4 22-MAR-83

NASSCO SHEETMETAL SHAPE #8

* HULL 418

* DRAWING 501-232

* V2-92007

* V6-1914

* 18 GAUGE GALV. SHEETMETAL

* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK

* SHEAR 11 GAUGE SHEETMETAL PARTS

FITTER BEGINS AT 14FT.SHEAR

1 POSITION 11 GAUGE SHEETMETAL2 FROM CART AT 14FT.SHEAR
TO 14FT.SHEAR WITH 4 STEPS

A1	B0	G1	A6	B0	P6	A0	1.00	140.
----	----	----	----	----	----	----	------	------

2 PUSH 14FT.SHEAR-FOOTPEDAL A-f 14FT.SHEAR PROCESS

A1	B0	G1	M1	X3	IO	A0	1.00	60.
----	----	----	----	----	----	----	------	-----

3 POSITION 11 GAUGE SHEETMETAL2 FROM 14FT.SHEAR TO
14FT.SHEAR F 11

A1	B0	G1	A1	B0	P6	A0	11.00	990.
----	----	----	----	----	----	----	-------	------

4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 11

A1	B0	G1	M1	X3	IO	A0	11.00	660.
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5 REPLACE SHEETMETAL2 FROM 14FT.SHEAR TO CART AT
14FT.SHEAR WITH 18 STEPS

A1	B0	G1	A32	B0	P3	A0	1.00	370.
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6 MOVE CART WITH SHEETMETAL FROM 14FT.SHEAR TO
SMALLSHEAR

A1	B0	G1	A32	B0	F1	A0	1.00	390.
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TOTAL TMU 2570.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Please input file <VNELBO.M36> ?

file Description ? SHEAR CHEEKS, THROAT, HEEL AND VANE TRACK

Output to line-printer <Y or N> ? N

(39,3)

FIT .W07 VNELBO.M36
SHEAR SHEETMETAL FOR CHEEKS, THROAT, HEEL AND VANE TRACK WITH
SMALLSHEAR AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 22-MAR-83

NASSCO SHEETMETAL SHAPE. #8

* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12'X90 DEGREE ELBOW WITH VANE TURN
* THROAT AND HEEL HAVE TWO PARTS EACH
FITTER BEGINS A1' SMALLSHEAR

1	POSITION 18 GAUGE SHEETMETAL2 FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL PROCESS		
	A1 B0 G1 M1 X6 IO A0	1.00	90.
3	POSITION 18 GAUGE SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 30		
	A1 B0 G1 M1 X6 IO A0	30.00	2700.
5	MOVE SHEETMETALSCRAP (18 GAUGE) FROM SCRAPBIN TO SMALLSHEAR		
	A32 B3 G1 A32 B0 P1 A0	1.00	690.
6.	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8		
	A1 B0 G1 M1 X6 IO A0	8.00	720.
7	REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 48 STEPS		
	A1 B0 G1 A81 B0 P3 A0	1.00	860.
8	MOVE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE		
	A1 B0 G1 A67 B3 P1 A0	1.00	730.
	TOTAL TMU		6070.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

8640 .

Please input file <VNELBO.M37> ?

File Description ? SHEAR CHEEKS & ACCESS WITH UNI-SHEAR

Output to line-printer <Y or N> ? N

(39 , 3)

FIT .W08

VNELBO.M37

SHEAR SHEETMETAL FOR CHEEKS AND ACCESS WITH UNI-SHEAR AT
SHEETMETAL SHOP

PER VANE ELBOW

OFG: 4 24-MAR-83

NASSCO SHEETMETAL SHAPE # 8

* HULL 418

* DRAWING 501-292-

* V2-92007

* V6-1914

* 18 GAUGE GALV. SHEETMETAL

* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK

* HAMMER 90 DEGREE EDGE ON THROAT

* USE WEIGHT ON BACKUP

FITTER BEGINS AT WORKTABLE'

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 4	A1 B0 G1 A6 B0 P3 A0	4.00	440.
2	MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	PLACE CHISEL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	A1 B0 G1 A1 B0 P3 A0	4.00	240.
4	FASTEN CHISEL TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 4 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (4)	1.00	200.
5	OPERATE UNISHEAR ON SHEETMETAL AT WORKTABLE PROCESS F 13	A1 B0 G1 M6 X173I0 A0	13.00	23530.
6.	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS. USING SNIPS AT WORKTABLE AND ASIDE PF 32 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C3)A1 B0 P1 A0 (32)	1.00	2280.
7	FASTEN (FLATTEN) SHEETMETAL TO WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 32 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (32)	1.00	2280.
8	POSITION SHEETMETAL FROM WORKTABLE TO WORKTABLE F 6	A1 B0 G1 A1 B0 P6 A0	6.00	540.
9	GRIP SHEETMETAL TO WORKTABLE USING CCLAMPS AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (12)	1.00	640.
10	PLACE WEIGHT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12	A1 B0 G1 A1 B0 P3 A0	12.00	720.
11	FASTEN SHEETMETAL (BEND EDGE) ON WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 76 (4 5 6 7) F 3	A1 B6 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (76)	3.00	9420.
12	PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 4	A1 B0 G1 A6 B0 P3 A0	4.00	440.

13	MOVE	CART	WITH	SHEETMETAL2	FROM	WORKTABLE	TO	LAYOUT			
				A1	B0	G1	A54	B0	P1	A0	
									1.00		570.

										TOTAL	TMU	43270.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

51,910

PLEASE INPUT FILE (VNELBO.M38) ?

File Description ? LAP OUT VANED ELBOW

Output to line-Printer <Y or N> ? N

(3 9 , 3)

FIT .W07

VNELBO.M38

FORM SHEETMETAL ON VANED ELBOW WITH LAP OUT (ROTARY MACHINE) AT
SHEETMETAL SHOP

PER VANED ELBOW

OFG: 4 22-MAR-83

NASSCO SHEETMETAL SHAPE # 8

* HULL 418

* DRAWING 501-292

* V2-92007

* V6-1914

* 18 GAUGE GALV. SHEETMETAL

* 22'X90 DEGREE ELBOW WITH VANE TRACK

* FORM LAPOUT OFFSET ON ROTARY MACHINE

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 6

A1	B0	G1	A6	B0	P3	A0	6.00	660.
----	----	----	----	----	----	----	------	------

2 PUSH LAPOUT-SWITCH PROCESS F 6

A1	B0	G1	M1	X16	IO	A0	6.00	1140.
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3 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 6

A1	B0	G1	A6	B0	P3	A0	6.00	660.
----	----	----	----	----	----	----	------	------

4 MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO PITTSBURGH

A1	B0	G1	A6	B0	P1	A0	1.00	90.
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TOTAL TMU 2550.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

54,460

Please input file <VNELBO.M39> ?

File. Description ? FORM PITTSBURGH LOCK ON VANE TRACK ELBOW

Output to line-printer <Y or N> ? N

(3 9 , 3)
FIT .W07 VNELBO.M39
FORM SHEETMETAL FOR VANE TRACK ELBOW WITH PITTSBURGH (LOCKFORMER)
AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 22-MAR-83
NASSCO SHEETMETAL SHAPE #8
* HULL. 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12'X 90 DEGREE ELBOW WITH VANE TRACK
* FORM PITTSBURGH
* FORM 90 DEGREE EDGE ON PITTSBURGH
FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 6	A1 B0 G1 A6 B0 P3 A0	6.00	660.
2	PUSH PITTSBURGH-BUTTON PROCESS F 2	A1 B0 G1 M1 X32 IO A0	2.00	700.
3	PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH F 12	A1 B0 G1 M1 X0 I3 A0	12.00	720.
4	PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 4 STEPS F 2	A6 B0 G1 M1 X0 13 A0	2.00'	220.
5	REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS F 6	A1 B0 G1 A6 B0 P3 A0	6.00	660.
6	MOVE CART FROM PITTSBURGH TO WORKTABLE	A1 B0 G1 A54 B3 P1 A0	1.00	600.
			TOTAL TMU	3560.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

58020

Please input file <VNELBO.M40> ?

File Description ? POSITION SPACERS IN PITTSBURGH LOACK

Output to line-Printer <Y or N> ? N

(3 9 , 3)

FIT .W07 VNELBO.M40
POSITION SHEETMETAL (SPACERS) FOR PITTSBURGH LOCK WITH HAMMER AT
SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 22-MAR-83

NASSCO SHEETMETAL SHAPE # 8
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK
* POSITION STRIPS IN PITTSBURGH LOCK
* POSITION FOR SPACERS BEFORE BEND
FITTER BEGINS AT WORKTABLE

1	POSITION SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	FASTEN (FLATTEN) SHEETMETAL CORNERS TO WORKTABLE 7 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 F16)A1 B0 P1 A0 (16)	1.00	2760.
3	PLACE SHEETMETAL (STRIPS) FROM WORKTABLE TO SHEETMETAL (THROAT & HEEL PITTS.) AT WORKTABLE F 4		
	A1 B0 G1 A1 B0 P3 A0	4.00	240.
4	FASTEN SHEETMETAL [STRIPS] TO SHEETMETAL [PITTS.] AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (8)	1.00	600.
5	POSITION MASKING-TAPE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4		
	A1 B0 G1 A1 B0 P6 A0	4.00	360.
6	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 2 STEPS F 2		
	A1 B0 G1 A3 B0 P3 A0	2.00	160.
7	MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO CORNICEBRAKE		
	A1 B0 G1 A54 B0 F1 A0	1.00	570.
	TOTAL TMU		4970.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

62,990

Please input file <VNELBO.M41>* ?

File Description ? BEND THROAT, HEEL & VANES FOR ELBOW

Output to line-printer <Y or N> ? N

(3 9 , 3)

FIT .W07

VNELBO.M41

BEND SHEETMETAL FOR THROAT, HEEL, AND VANES FOR ELBOW WITH
CORNICE BRAKE AT SHEETMETAL SHOP
PER VANE ELBOW

OFG: 4 22-MAR-83

NASSCO SHEETMETAL SHAPE # 8

* HULL 418

* DRAWING 501-292

* V2-92007

* V6-1914

* 18 GAUGE GALV. SHEETMETAL

* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK

* BEND HEMMED EDGE ON VANES 180 DEGREES

FITTER BEGINS AT CORNICEBRAKE

1 POSITION SHEETMETAL2 FROM CART AT CORNICEBRAKE TO
CORNICEBRAKE F 14

A1 B0 G1 A1 B0 P6 A0

14.00 1260.

2 OPERATE CORNICEBRAKE-LEVER PROCESS F 74

A1 B0 G1 M6 X42 IO A0

74.00 37000.

3 REPLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT
CORNICEBRAKE WITH.4 STEPS

A1 B0 G1 A6 B0 P3 A0

1.00 110.

4 MOVE CART WITH SHEETMETAL2 FROM CORNICEBRAKE TO TABLE
AT HYDROPRESS

A1 B0 G1 A81 B0 P1 A0

1 . 0 0 840.

TOTAL TMU

39210.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

10,2200

please input file <VNELBO.M42> ?

File Description ? FORM RADIUS ON VANES FOR ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ? N

(3 9 , 3)

FIT .W07

VNELBO.M42

BEND SHEETMETAL FOR RADIUS ON VANES FOR VANE TRACK ELBOW WITH
8 FT. HYDRO PRESS AT SHEETMETAL SHOP

PER VANE ELBOW

OFG: 4 22-MAR-83

NASSCO SHEETMETAL SHAPE # 8

* HULL 418

* DRAWING 501-292

* V2-92007

* V6-1914

* 18 GAUGE GALV. SHEETMETAL

* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK

* BEND RADIUS ON VANES

FITTER BEGINS AT HYDROPRESS

1 PLACE SHEETMETAL2 FROM CART AT HYDROPRESS TO TABLE AT
HYDROPRESS WITH 4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

2 PLACE SHEETMETAL2 FROM TABLE AT HYDROPRESS TO
HYDROPRESS F 10

A1	B0	G1	A1	B0	P3	A0	10.00	600.
----	----	----	----	----	----	----	-------	------

3 OPERATE HYDROPRESS-FOOTPEDAL PROCESS F 99

A1	B0	G1	M6	X6	IO	A0	99.00	13860.
----	----	----	----	----	----	----	-------	--------

4 OPERATE HYDROPRESS-FOOTPEDAL PROCESS F 99

A1	B0	G1	M6	X6	IO	A0	99.00	13860.
----	----	----	----	----	----	----	-------	--------

5 REPLACE SHEETMETAL2 FROM HYDROPRESS TO TABLE AT
HYDROPRESS F 10

A1	B0	G1	A1	B0	P3	A0	10.00	600.
----	----	----	----	----	----	----	-------	------

6 REPLACE SHEETMETAL2 FROM TABLE AT HYDROPRESS TO CART AT
HYDROPRESS WITH 4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

7 MOVE CART FROM HYDROPRESS TO SPOTWELDER

A1	B0	G1	A42	B0	F1	A0	1.00	450.
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TOTAL TMU 29590.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

13,1790

Please input file <VNELBO.M43> ?

File Description ? SPOT WELD BACK UP PLATES TO ACCESS OPENING

Output to line-printer <Y or N> ? N

(3 9 , 3)

FIT .W07

VNELBO.M43

WELD SHEETMETAL ON BACK UP PLATES TO ACCESS OPENING WITH

SPOT WELDER AT SHEETMETAL SHOP

PER VANE ELBOW

OFG: 4 23-MAR-83

NASSCO SHEETMETAL SHAPE #8

* HULL 418

* DRAWING 501-292

* V2-92007

* V6-1914

* 18 GAUGE GALV. SHEETMETAL

* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK

* TWO PEOPLE ARE NEEDED TO POSITION

FITTER BEGINS AT WORKTABLE

1 MOVE CCLAMP FROM WORKTABLE TO SPOTWELDER

A1 B0 G1 A54 B0 P1 A0

1.00 570.

2 POSITION SHEETMETAL FROM CART AT SPOTWELDER TO
SPOTWELDER WITH 3 STEPS

A1 B0 G1 A6 B0 P6 A0

1.00 140.

3 GRIP SHEETMETAL2 [BACK UP PLATES] TO SHEETMETAL AT
WORKTABLE USING CCLAMPS AND ASIDE PF 7 (4 5 6 7)

A1 B0 G1 (A54 B3 P3 C1)A1 B0 P1 A0 (7)

1.00 4 3 1 0

4 POSITION SHEETMETAL2 FROM SPOTWELDER TO SPOTWELDER F 64

A54 B0 G1 A1 B0 P6 A0

64.00 39680.

5 OPERATE SPOTWELDER-FOOTPEDAL PROCESS F 64

A1 B0 G1 M6 X6 IO A0

64.00 8960.

6 REPLACE SHEETMETAL FROM SPOTWELDER TO CART AT
SPOTWELDER WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0

1.00 110.

7 MOVE CART WITH SHEETMETAL2 FROM SPOTWELDER TO WELDOUT

A1 B0 G1 A81 B3 P1 A0

1.00 870.

TOTAL TMU

54640.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

/ 8 X 4 3 0

Please input file <VNELBO.M4

File Description ? TACK WELD VANE TURNS TO VANE TRACK

output to line-printer <Y or N> ? N

(39,37)

FIT .W07

VNELBO.M44

SHEETMETAL ON up VANE TURNS TO VANE TRACK WITH TACK WELDER AT
SHEETMETAL SHOP

PER VANE ELBOW

OFG: 4 23-MAR-83

NASSCO SHEETMETAL SHAPE # 8

* HULL 4 1 8

* **DRAWING 501-292**

* **v2-9200/**

* V6-1914

* 18 GAUGE GALV. SHEETMETAL

* **22'X12'X90' DEGREE ELBOW WITH VANE TRACK**

FITTER BEGINS AT WELDOUT

1 PLACE SHEETMETAL2 FROM CART AT WELDOUT TO WELDOUT WITH
4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

2 **POSITION SHEETMETAL2** FROM WELDOUT TO SHEETMETAL AT
WELDOUT WITH 4 STEPS

A1	B0	G1	A6	B0	P6	A0	1.00	140.
----	----	----	----	----	----	----	------	------

3 **OPERATE TACKWELDER AT WELDOUT** PROCESS F 60

A1	B0	G1	M6	x3	I0	A0	60.00	6600.
----	----	----	----	----	----	----	-------	-------

4 **REPLACE SHEETMETAL2 FROM WELDOUT TO CART AT WELDOUT**
WITH 4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

5 **MOVE CART FROM WELDOUT TO WORKABLE**

A1	B0	G1	A54	B3	P1	A0	1.00	600.
----	----	----	-----	----	----	----	------	------

TOTAL TMU 7560.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

193990

Please input file <VNELBO.M45> ?



File Description ? ASSEMBLE ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W07

VNELBO.M45

ASSEMBLE SHEETMETAL FOR VANE TRACK ELBOW WITH HAMMER AT

SHEETMETAL SHOP

PER VANE ELBOW

OFG: 4 23-MAR-83

NASSCO SHEETMETAL SHAPE #8

* HULL 418

* DRAWING 501-292

* V2-92007

* V6-1914

* 18 GAUGE GALV. SHEETMETAL

* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK

* THROAT & HEEL HAVE 2 PARTS EACH

FITTER BEGINS AT WORKTABLE

- 1 PLACE SHEETMETAL FROM CART AT WORK-1-ABLE TO WORKTABLE
WITH 3 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

- 2 POSITION SHEETMETAL [CHEEK #1] FROM WORKTABLE TO
SHEETMETAL [THROAT&HEEL] AT WORKTABLE WITH 3 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.



- 3 FASTEN SHEETMETAL [PITTSBURGH LOCK] ON SHEETMETAL AT
WORKTABLE 6 STRIKES USING HAMMER AND ASIDE PF 10 (4 5
6 7)

A1 B0 G1 (A1 B0 P0 F16)A1 B0 P1 A0 (10) 1.00 1740.

- 4 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 8

A1 B0 G1 A1 H0 P6 A0 8.00 720.

- 5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES
USING HAMMERA AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (8) 1.00 600.

- 6 POSITION SHEETMETAL [VANE TRACK] FROM WORKTABLE 'TO
SHEETMETAL [CHEEK, HEEL, & THROAT ASSEMBLY1 AT
WORKTABLE WITH 3 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

- 7 POSITION SHEETMETAL [CHEEK#2] FROM WORKTABLE TO
SHEETMETAL [CHEEK, HEEL, & V, T, ASSEMBLY3 AT WORK-1-ABLE
WITH 3 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

- 8 FASTEN SHEETMETAL [PITTS. LOCK] ON SHEETMETAL AT
WORKTABLE 6 **STRIKES** USING HAMMER A1 WORKTABLE AND
ASIDE PF 10 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 P16)A1 B0 P1 A0 (10) 1.00 1740.

- 9 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE

A1 B0 G1 A1 B0 P6 A0 8.00 720.



- 10 FASTEN **SETTINGTOOL** TO SHEETMETAL AT WORKTABLE 3 STRIKES
USING HAMMER AND ASIDE PF 8 (4 5 6 7)

(A1 B0 P0 F6)A1 B0 P1 A0 (8) 1.00 600.

- 11 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES

	USING HAMMER AND ASIDE PF 46 (4 5 6 7)		
	A1 B0 G1 (A1 B0 PO F32)A1 B0 P1 A0 (46)	1.00	15220.
1.2	REPOSITION SHEETMETAL FROM WORKTABLE TO WORKTABLE WITH 3 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
1.3	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AND ASIDE PF 46 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 F32)A1 B0 P1 A0 (46)	1.00	15220.
	TOTAL TMU		37230.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

23,220

File Description ? RIVET VANE ~~TRACK~~ & THROAT & HEEL LAPS

Output to line-printer <Y or N> ? N

(39, 3)

FIT 0 W07

VNELBO.M46

RIVET SHEETMETAL FOR VANE TRACK, THROAT, & HEEL LAPS WITH
RIVET GUN AT SHEETMETAL SHOP
PER VANE ELBOW

OFG: 4 23-MAR-83

NASSCO SHEETMETAL SHAPE # 8

* HULL 418

* DRAWING 501-292

* V2-92007

* V6-1914

* 18 GAUGE GALV. SHEETMETAL

* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK

* RIVET 2 PART THROAT & 2 PART HEEL & V. T.

FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSION ON SHEETMETAL [THROAT & HEEL] AT
WORKTABLE USING-STEEL-TAPE AT WORKTABLE AND ASIDE PF 4
(4 5 6 7)

A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (4) 1.00 1400.

2 MARK DIMENSION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
AWL AND ASIDE PF 20 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (20) 1.00 1040.

3 FASTEN 5 / 32DRILL-BIT TO SHEETMETAL AT WORKTABLE 3
WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE

A1 B0 G1 A0 B0 (P3 A1 F6)A1 B0 P1 A0 (5) 1.00 540.

4 OPERATE DRILLMOTOR ON SHEETMETAL PROCESS F 20

A1 B0 G1 M6 X6 I0 A0 20.00 2800.

5 POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 20

A1 B0 G1 A1 B0 P6 A0 20.00 1800.

6 OPERATE RIVETGUN PROCESS F 20

A1 B0 G1 M6 X3 I0 A0 20.00 2200.

7 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 4

A1 B0 G1 A1 B0 P6 A0 4.00 360.

8 MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING
AWL AND ASIDE PF 4 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4) 1.00 760.

7 OPERATE DRILLMOTOR PROCESS F 12

A1 B0 G1 M6 X6 I0 A0 12.00 1680.

10 OPERATE RIVETGUN PROCESS F 12

A1 B0 G1 M6 X3 I0 A0 12.00 1320.

TOTAL TMU 13900.

Type U,EM,CI,EW,EX,L,LD,LS,M,T,W <or H for help> ?

245 / 20

File Description Y TAP BOLT HOLES PLATE

utput to line-printer <Y or N> ? N

(39, 3)
 F I T VNELBO.M47)
 THREAD SHEETMETAL FOR BOLT HOLES IN ELBOW BACK UP PLATE WITH TAP
 AT SHEETMETAL SHOP
 PER VANE ELBOW OFG: 4 23-MAR-83

* NASSCO SHEETMETAL SHAPE #8
 * HOLE 418
 * DRAWING 501-292
 * V 2 - 9 2 0 0 1
 * V 6 - 1 9 1 4
 * 18 GAUGE GALV. SHEETMETAL
 * 22 X 12 X 90 DEGREES ELBOW WITH VANE TRACK
 * TAP 11 GAUGE BACK UP PLATE
 * DRILL CLEARANCE IN ACCESS PLATE
 FITTER BEGINS AT WORKTABLE

1	POSITION SHEETMETAL [ACCESS COVER] TO SHEETMETAL [ELBOW ASSEMBLY] AT WORKTABLE WITH 3 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	LOOSEN 5 / 32DRILL-BIT FROM DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AND HOLD		
	A1 B0 G1 A0 B0 (P3 A1 L6)A0 B0 P0 A0 (5)	1.00	520.
3	FASTEN 7 / 32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AND ASIDE		
	A1 B0 G1 A0 B0 (P3 A1 F6)A1 B0 P1 A0 (7)	1.00	740.
4	OPERATE DRILLMOTOR PROCESS F 4		
	A1 B0 G1 M6 X6 I0 A0	4.00	560.
5	HOVE TAPINGMOTOR FROM TOOLROOM TO WORKTABLE		
	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
6	OPERATE DRILLMOTOR [TAPINGMOTOR] PROCESS F 4		
	A1 B0 G1 M6 X6 I0 A0	4.00	560.
7	POSITION BOLT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4		
	A1 B0 G1 A1 B0 P6 A0	4.00	360.
8	FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P3 F24)A1 B0 P1 A0 (4)	1.00	1160.
9	OPERATE DRILLMOTOR PROCESS F 29		
	A1 B0 G1 M6 X6 I0 A0	29.00	4060.
10	LOOSEN BOLT FROM SHEETMETAL AT WORKTABLE 10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P3 L24)A1 B0 P1 A0 (4)	1.00	1160.
11	REPLACE SHEETMETAL [ACCESS COVER] FROM SHEETMETAL TO WORKTABLE		
	A1 B0 G1 A1 B0 P3 A0	1.00	60.
12	OPERATE DRILLMOTOR [TAPINGMOTOR] PROCESS F 29		
	A1 B0 G1 M6 X6 I0 A0	29.00	4060.
13	LOOSEN 7.32DRILL-BIT FROM DRILLMOTOR AT WORKTARLE 3 WRIST-TURNS USING CHUCKKEY AND ASIDE		
	A1 B0 G1 A1 B0 P3 L6 A1 B0 P1 A0	1.00	140.
14	FASTEN 5.16DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AND ASIDE		
	A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0	1.00	140.

15 OPERATE DRILLMOTOR ON SHEETMETAL [ACCESS COVER] PROCESS

F 33

A1 B0 G1 M6 X6 I0 A0 33.00 4620.

TOTAL TMU 20250.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

265370

Please input file <VNELBO.M48> ?

 File Description ? CUT RUBBER GASKET FOR ACCESS PLATE

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W07 VNELBO.M48
CUT RUBBER FOR ACCESS PLATE GASKET WITH UTILITY KNIFE AT
SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 23-MAR-83
NASSCO SHEETMETAL SHAPE #8
* HULL 418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22 X 12 X 90 DEGREE ELBOW WITH WANE TRACK
* USE AC. PLATE FOR TEMPLATE TO CUT RUBBER
FITTER BEGINS AT WORKTABLE

1	MOVE-SHEETMETAL2 [ACCESS COVER] AND BLACKPEN [INK PEN] FROM WORKTABLE TO GASKET-CUTTING-TABLE		
	A 1 B0 G1 A152B0 P1 A0	1.00	1550.
2	MOVE UTILITY-KNIFE, 3 / 8HOLE-PUNCH AND MALLET FROM TOOLROOM TO GASKET-CUTTING-TABLE		
	AY6 B0 G1 A96 B0 P1 A0	1.00	1940.
3	PLACE RUBBER FROM SHELF AT GASKET-CUTTING-TABLE TO GASKET-CUTTING-TABLE WITH 3 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
4	PLACE SHEETMETAL2 [ACCESS COVER] FROM GASKET-CUTTING-TABLE TO RUBBER AT GASKET-CUTTING-TABLE		
	A1 B0 G1 A1 B0 P3 A0	1.00	60.
5	CUT RUBBER TRACING SHEETMETAL [ACCESS COVER] AT GASKET-CUTTING-TABLE 1 CUT USING UTILITY-KNIFE AND ASIDE PF 4 (4 5 6 7)		
	AY6 B0 G1 - (AY6 B0 P3 G1)A1 B0 P1 A0 (4)	1.00	4990.
6	REPLACE SHEETMETAL2 FROM RUBBER AT GASKET-CUTTING-TABLE TO GASKET-CUTTING-TABLE		
	A 1 B 0 G1 A1 B0 P3 A0	1.00	60.
7	POSITION 3 / 8HOLE-PUNCH FROM GASKET-CUTTING-TABLE TO RUBBER AT GASKET-CUTTING-TABLE F 33		
	A1 B0 G1 A1 B0 P6 A0	33.00	2970.
8	FASTEN HOLE PUNCH TO RUBBER AT GASKET-CUTTING-TABLE 2 STRIKES USING MALLET AT GASKET-CUTTING-TABLE AND ASIDE PF 33 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (33)	1.00	2350.
9	MOVE SHEETMETAL2 [ACCESS PLATE] AND RUBBER FROM GASKET-CUTTING-TABLE TO WORKTABLE		
	A1 B0 G1 A152 B3 P1 A0	1.00	1580.
10	MOVE HOLE PUNCH, UTILITY-KNIFE, AND MALLET FROM GASKET-CUTTING-TABLE TO TOOLROOM		
	A152B0 G1 A96 B0 P1 A0	1.00	2500.
	TOTAL TMU		18110.

283480

Please input file <VNELBO.M49> ?

File Description ? DEBURR ACCESS COVER & ACCESS HOLE

Output to line-printer <Y or N> ? N

(39, 3)

FIT • W07

VNELBO.M49

DEBURR SHEETMETAL FOR ACCESS COVER & ACCESS HOLE WITH FILE AT
SHEETMETAL SHOP

PER VANE ELBOW

OFG: 4 23-MAR-83

NASSCO SHEETMETAL SHAPE #8

* HULL 418

* DRAWING 501-292

* V2-92007

* V6-1914

* 18 GAUGE GALV. SHEETMETAL

* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK

* DEBURR BOLT HOLES & ROUGH EDGES

FITTER BEGINS AT WORKTABLE

1 MOVE GLUE FROM TOOLROOM TO WORKTABLE

A96 B0 G1 A96 B3 P1 A0 1.00 1970.

2 DEBURR SHEETMETAL [ACCESS COVER] AT WORKTABLE 1

ARM-STROKE USING FILE AND HOLD PF 30 (4 5 6 7)

B0 G1 (A1 B0 P1 C1)A0 B0 P0 A0 (30) 1.00 920.

3 DEBURR SHEETMETAL ELBOW ASSEMBLY? AT WORKTABLE 1

ARM-STROKE USING FILE AND ASIDE PF 30 (4 5 6 7)

A 1 B 0 G 1 (A1 B0 P1 C1)A1 B0 P1 A0 (30) 1.00 940.

4 MOVE RUBBER WITH 0 STEPS FROM GASKET-CUTTING-TABLE TO
WORKTABLE WITH 0 STEPS

A1 B0 G1 A1 B3 P1 A0 1.00 70.

5 GRIP GLUE TO RUBBER AT WORKTABLE 2 SQ.FT. USING BRUSH
AND ASIDE

A96 B0 G1 A96 B3 P3 C1 A1 B0 P1 A0 1.00 2020.

6 PLACE SHEETMETAL [ACCESS COVER] FROM WORKTABLE TO
SHEETMETAL [ELBOW] AT WORKTABLE

A1 B0 G1 A1 B0 P3 A0 1.00 60.

7 POSITION BOLT FROM WORKTABLE TO SHEETMETAL [ELBOW] AT
WORKTABLE

A1 B0 G1 A1 B0 P6 A0 1.00 90.

8 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS
USING WRENCH AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)

P3 F24)A1 B0 P1 A0 (4) 1.00 1160.

9 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

A0 B0 GO A0 B0 P0 I10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 7330.

TYPE U,EM,L),EW,EX,L,LU,LS,M,I,W <or H for help> ?

290810

Please input file <VNELBO.M30> ?

File Description ? WELD ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ? N

(39,101)

WELD .W01 VNELBO.M30
WELD VANE TRACK ELBOW WITH TIG-WELDER AT SHEETMETAL SHOP
WELDING BOOTH
PER VANE TRACK ELBOW OFG: 4 22-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 8

* HULL418
* DRAWING 501-292
* V2-92007
* V6-1914
* 18 GAUGE GALV. SHEETMETAL
* 22'X12' ELBOW WITH VANE TRA--
* --WITH 9 TURN VANES
* TACK WELD WITH 1' TACKS
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS WORK
* FITTER TRANSPORTSHEETMETAL
FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FITTER HOVE CART FROM WORKTABLE TO WELDTABLE		
	A1 B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELD-TABLE TO WELDTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 B0 G1 M1 X0 I0 A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDHACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M1 X0 I0 A1	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND		
	A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0	1.00	70.
7	WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M3 X0 I0 A1	1.00	60.
8	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE		
	A3 B3 G1 A1 B0 P6 A0	1.00	140.
9	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS		
	A1 B0 G1 M1 X10 I0 A0	1.00	130.
10	WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBY AT WELDTABLE F 70		
	A1 B0 G1 A1 B0 P6 A0	70.00	6300.
11	PULL WELDHOOB FROM UP AT WELDOR TO DOWN AT WELDOR F 22		
	A1 B0 G1 M1 X0 I0 A1	22.00	880.
12	WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL		

ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 70				
	A1 B0 G1 A1 B6 P6 A0	70.00	10500.	
13	OPERATE WELD STINGER-BUTTON1 PROCESS F 22			
	A1 B0 G1 M6 X81 I0 A0	22.00	19580.	
14	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 22			
	A1 B0 G1 M1 X0 I0 A1	22.00	880.	
15	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10			
	ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF			
	22(4567)			
	A1 B0 G1 (A1 B0 P1 C10)A1 B0 P1 A0 (22)	1.00	2680.	
16	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT			
	WELDTABLE WITH 4 STEPS F 2			
	A1 B0 G1 A6 B0 P3 A0	2.00	220.	
17	FITTER MOUE CART FROM WELDTABLE TO WORKTABLE			
	A1 B0 G1 A131B0 P1 A0	1.00	1340.	
			TOTAL TMU	45000.

File Description ? WELD ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ?

SHEETMETAL SHAPE # 9

10" x 5" to 8" x 5" RECTANGLE to RADIUS CORNERS

FAB	53520	32 MIN
MARK OUT	27960	16 MIN
WELD	- 10200	6 MIN
TOTAL	91680	55 MIN

File Description ? MARK OUT SHEETMETAL FOR RECT. TO RADIUS CORNERS

Output to line-minter <Y or N> ? N

(39, 1)

FIT .W11 RCT2RC.M01

MARK OUT SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITH AWL AT
SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 20 GAUGE GALV. SHEETMETAL

* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--

* --WITH 1 1/2' RADIUS CORNERS

* MARK OUT USING TEMPLATE

FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 4

A1 B0 G1 A6 B0 P6 A0 4.00 560.

2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT
WORKTABLE WITH 3 STEPS F 4

A1 B0 G1 A6 B0 P6 A0 4.00 560.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 (4 5 6
7)

A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (16) 1.00 2920.

4 POSITION CFUNCH FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 40

A1 B0 G1 A3 B0 P6 A0 40.00 4400.

5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER AND ASIDE PF 30 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (30) 1.00 1240.

6 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE
WITH 3 STEPS F 4

A1 B0 G1 A6 B0 P3 A0 4.00 440.

7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 3 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220 .

8 MARK CUT LINE ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
REDPEN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (16) 1.00 840.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 84 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (84) 1.00 4240.

10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7
)

A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52) 1.00 2640.

11 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (5) 1.00 1740.

12 MARK DIMENSION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (6) 1.00 340.

13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE AND ASIDE WITH 3 STEPS PF 6 (4 5 6 7)

	A1 B0 G1 (A6 B0 P6 A0)	1.00	740.
14	MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 5 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (5)	1.00	940.
15	MARK CUT LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 5 (4 5 6 7) (A1 B0 P1 R16)A1 B0 P1 A0 (5)	1.00	940.
16	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 32 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (32)	1.00	1640.
17	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	2640.
18	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
19	MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR A1 B0 G1 A67 B0 P1 A0	1.00	700.
	TOTAL TMU		27960.

File Description ? SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS

File Description ?

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 RCT2RC.M02

SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITH
SMALL 8FT. SHEAR AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 20 GAUGE GALV. SHEETMETAL

* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--

* --WITH 1 1/2' RADIUS CORNERS

* SHEAR 1 1/2, STRIPS FOR RADIUS CORNERS

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2

A1	B0	G1	A6	B0	P6	A0	2.00	280.
----	----	----	----	----	----	----	------	------

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

A1	B0	G1	M1	X6	IO	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH
2 STEPS F 15

A1	B0	G1	A3	B0	P6	A0	15.00	1650.
----	----	----	----	----	----	----	-------	-------

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 15

A1	B0	G1	M1	X6	IO	A0	15.00	1350.
----	----	----	----	----	----	----	-------	-------

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 20 STEPS

A1	B0	G1	A32	B0	P3	A0	1.00	370.
----	----	----	-----	----	----	----	------	------

6 MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE

A1	B0	G1	A67	B3	P1	A0	1.00	730.
----	----	----	-----	----	----	----	------	------

TOTAL TMU							4470.
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR RADIUS FOR RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N> ? N\

(39, 1)

FIT .W11 RCT2RC.M03

SHEAR RADIUS FOR. RECTANGULAR TO RADIUS CORNERS WITH UNI-SHEAR AT
SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 20 GAUGE GALV. SHEETMETAL

* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--

* --WITH 1 1/2. RADIUS CORNERS

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE

A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 4

A1 B0 G1 M6 X173I0 A0 4.00 7240.

4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
SNIPS AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 C3)A1 B0 P1 A0 (8) 1.00 600.

5 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3
STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4
5 6 7)

A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (16) 1.00 1160.

6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220 .

7 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO LAPOUT

A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 11870.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

16340

File Description ? FORM LAP END OR RECTANGULAR TO RADIUS CORNERS

Output to line-printer (Y or N) ? N

(39, 1)
FIT .W11 RCT2RC.M04
FORM LAP END ON RECTANGULAR TO RADIUS CORNERS WITH LAPOUT MACHINE
AT SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 13-MAY-83
NASSCO SHEETMETAL SHAPE 9
* 20 GAUGE GALV. SHEETMETAL
* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--
* --WITH 1 1/2' RADIUS CORNERS
FITTER BEGINS AT LAPOUT

1	PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4		
	STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	PUSH LAPOUT-SWITCH PROCESS F 2		
	A1 B0 G1 M1 X16 I0 A0	2.00	380.
3	PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 2 STEPS		
	A3 B0 G1 M1 X0 I3 A0	1.00	80.
4	REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH		
	4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
5	HOVE CART WITH SHEETMETAL FROM LAPOUT TO WORKTABLE		
	A1 B0 G1 A54 B3 P1 A0	1.00	600.
		TOTAL TMU	1500.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

17,840

File Description ? BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS

utput to line-printer <Y or N> ? N

(39, 1)

FIT .W11 RCT2RC.M05
BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS WITH LEAF BRAKE AT
SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 13-MAY-83
NASSCO SHEETMETAL SHAPE 9
* 20 GAUGE GALV. SHEETMETAL
* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--
* --WITH 4' RADIUS CORNERS
FITTER BEGINS AT WORKTABLE

1	MOUE VISEGRIPS FROM WORKTABLE TO LEAFBRAKE		
	A1 B0 G1 A81 B0 P1 A0	1.00	840.
2	GRIP ADJUSTMENT ROD ON LEAFBRAKE USING VISEGRIPS AT LEAFBRAKE AND ASIDE		
	A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0	1.00	90.
3	POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFBRAKE F 2		
	A1 B0 G1 A1 B0 P6 A0	2.00	180.
4	OPERATE LEAFBRAKE-LEVER PROCESS F 2		
	A1 B0 G1 M6 X16 I0 A0	2.00	480.
5	POSITION SHEETMETAL2 FROM LEAFBRAKE TO LEAFBRAKE F 24		
	A1 B0 G1 A1 B0 P6 A0	24.00	2160.
6	OPERATE LEAFBRAKE-LEVER PROCESS F 24		
	A1 B0 G1 M6 X16 I0 A0	24.00	5760.
7	REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE WITH 4 STEPS F 2		
	AL B0 G1 A6 B0 P3 A0	2.00	220.
8	MOVE CART WITH SHEETMETAL FROM LEAFBRAKE TO WORKTABLE		
	A1 B0 G1 A81 B3 P1 A0	1.00	870.
		TOTAL TMU	10600.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

28440

File Description ? FORM RADIUS FOR RECTANGULAR TO RADIUS CORNERS

utput to line-printer <Y or N> ? N

(39, 1)

RCT2RC.M06

F I T . W 1 1 FORM RADIUS FOR RECTANGULAR TO RADIUS CORNERS WITH HAND-ROLLER AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 20 GAUGE GALV. SHEETMETAL

* 10'X5' TO 8'X5' RADIUS CORNERS 12'L-- -

* --WITH 1 1/2' RADIUS CORNERS

* CHECK COLLAR RADIUS WITH TRANSF. RADIUS

FITTER BEGINS AT WORKBENCH

1 POSITION SHEETMETAL2 FROM CART AT WORKBENCH TO
HAND-ROLLER AT WORKBENCH WITH 4 STEPS F 4

A1 B0 G1 A6 B0 P6 A0 4.00 560.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT WORKTABLE 3 SPINS
USING FINGERS F 4

A1 B0 G1 A67 B3 P1 F6 A0 B0 P0 A0 4.00 3160.

3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 8

A67 B3 G1 M6 X0 I0 A0 8.00 6160.

4 PLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO
SHEETMETAL AT WORKBENCH F 8

A1 B0 G1 A1 B0 P3 A0 8.00 480.

5 REPLACE SHEETMETAL FROM WORKBENCH TO CART AT WORKBENCH
WITH 4 STEPS F 4

A1 B0 G1 A6 B0 P3 A0 4.00 440.

6 MOVE CART WITH SHEETMETAL2 FROM WORKBENCH TO PANBRAKE

A1 B0 G1 A32 B0 P1 A0 1.00 350.

TOTAL TMU 11150.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

39,590

File Description ? BEND LAP ENDS FOR RECTANGULAR TO RADIUS CORNERS

utput to line-printer <Y or N> ? N

(39, 1)

FIT .W11

RCT2RC.M07

BEND LAP ENDS FOR RECTANGULAR TO RADIUS CORNERS WITH FAN-BRAKE AT
SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 20 GAUGE GLAV. SHEETMETAL

* 10'X8' TO 8'X5' RADIUS CORNER 12'L--

* --WITH 1 1/2' RADIUS CORNERS

FITTER BEGINS AT PANBRAKE

1 POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE
WITH 4 STEPS F 2

A1	B0	G1	A6	B0	P6	A0	2.00	280.
----	----	----	----	----	----	----	------	------

2 FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE 5
WRIST-TURNS USING WRENCH' AT PANBRAKE AND ASIDE

A1	B0	G1	A1	B0	P3	F10	A1	B0	P1	A0	1.00	180.
----	----	----	----	----	----	-----	----	----	----	----	------	------

3 OPERATE PANBRAKE-LEVER PROCESS F 6

A1	B0	G1	M6	X96	I0	A0	6.00	6240.
----	----	----	----	-----	----	----	------	-------

4 REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE
WITH 4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

5 MOVE CART WITH SHEETMETAL2 FROM PANBRAKE TO WORKTABLE

A1	B0	G1	A54	B3	P1	A0	1.00	600.
----	----	----	-----	----	----	----	------	------

TOTAL TMU 7410.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? M

47000

File Description ? ASSEMBLE RECTANGULAR TO RADIUS CORNERS

utput to line-printer <Y or N> ? N

(39, 1)

FIT .W11

RCT2RC.M08

ASSEMBLE SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITH

'RIVET GUN AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 20 GAUGE GALV. SHEETMETAL

* 10'X5' TO 8'X5' RADIUS CORNER 12' L--

* -- WITH 1 1/2' RADIUS CORNERS

* HOLD PIECES WITH VISEGRIPS WHILE --

* --DRILLING

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 2

A1 B0 G1 A1 B0 P6 A0 2.00 180.

3 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING
VISEGRIPS AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (2) 1.00 140.

4 FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3

WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE

A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.

5 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 2

A1 B0 G1 A1 B0 P6 A0 2.00 180.

6 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2

A1 B0 G1 M6 X6 IO A0 2.00 280.

7 POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 2

A1 B0 G1 A1 B0 P6 A0 2.00 180.

8 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 2

A1 B0 G1 A1 B0 P6 A0 2.00 180.

9 OPERATE RIVETGUN AT WORKTABLE PROCESS F 2

A1 B0 G1 M6 X3 IO A0 2.00 220.

TOTAL TMU 1720.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

48720

File Description ? TACK RADIUS CORNERS ON RECT. TO RADIUS CORNERS

 $(39, 1)$

RCT2RC.M09

OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 20 GAUGE GALV. SHEETMETAL

* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--

* --WITH 1 1/2' RADIUS CORNERS

* COMPLETE WELDING AT WELD AREA

* SEE RCT2RC.M10

FITTER BEGINS AT WORKTABLE

```
1 MOVE [CLAMPS , SHEETMETAL FROM WORKTABLE TO WELDOUT
```

A1 B0 G1 A54 B3 P1 A0

1.00

600.

2 POSITION SHEETMETAL FROM WELDOUT TO SHEELMETAL2 AT

WELDOUT F 4

A1 B0 G1 A1 B0 P6 A0

4.00

360.

3 GRIP SHEETMETAL TO SHEETMETAL AT WELDOUT USING

[CLAMPS AT WELDOUT AND ASIDE PF 8 (4 5 6 7)]

$$A1 \quad B0 \quad G1 \quad (A1 \quad B0 \quad P3 \quad C1) \quad A1 \quad B0 \quad P1 \quad A0$$

(8)

1.00

440.

4 POSITION TACKWELDER TO SHEETMETAL AT WELDOUT F 14

A1 B0 G1 A1 B0 P6 A0

14.00

1260.

5 OPERATE TACKWELDER AT WELDOUT PROCESS F 14

A1 B0 G1 M6 X3 IO A0

14.00

1540.

```
6 MOVE [CLAMPS , SHEETMETAL FROM WELDOUT TO WORKTABLE'
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A1 B0 G1 A54 B3 P1 A0

1.00

600.

TOTAL TMU

4800.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

53,520

File Description ? WELD RECTANGULAR TO RADIUS CORNERS

output to line-Printer <Y or N> ? N

```
( 39, 3)
WELD .W01                                RCT2RC.M10
WELD RECTANGULAR TO RADIUS CORNERS WITH TIG-WELDER AT SHEETMETAL
SHOP WELDING BOOTH
PER RECTANGULAR TO RADIUS CORNERS          OFG: 4  21-JUL-83
WELDING NASSCO SHEETMETAL SHAPE 9
* 20 GAUGE GALV. SHEETMETAL
* 10'X5 TO 8'x5' RADIUS CORNERS 12'L
* --WITH 1 1/2' RADIUS CORNERS
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
  AT WORKTABLE WITH 4 STEPS
      A1 B0 G1 A6 B0 P3 A0          1.00      110.
2 FITTER MOUE CART FROM WORKTABLE TO WELDTABLE
      A1 B0 G1 A131B3 P1 A0        1.00      1370.
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
  WELDTABLE WITH 4 STEPS
      A1 B0 G1 A6 B0 P3 A0          1.00      110.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
  WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
      A3 B0 G1 M1 X0 IO A32        1.00      370.
5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
  TO AT WELDMACHINES
      A1 B0 G1 M1 X0 IO A1          1.00      40.
6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
  WRIST-TURN USING HAND
      A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 1.00      70.
7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
  WELDMACHINES TO ON AT WELDMACHINES
      A1 B0 G1 M3 X0 IO A1          1.00      60.
a WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
  TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2
      A3 B3 G1 A1 B0 P6 A0          2.00      280.
9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2
      A1 B0 G1 M1 X10 IO A0         2.00      260.
10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
  ASSEMBLY AT WELDTABLE F 4
      A1 B0 G1 A1 B0 P6 A0          4.00      360.
11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 4
      A1 B0 G1 M1 X0 IO A1          4.00      160.
12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
  ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 4
      A1 B0 G1 A1 B6 P6 A0          4.00      600 .
13 OPERATE WELD STINGER-BUTTON1 PROCESS F 4
      A1 B0 G1 M6 X81 IO A0         4.00      3560.
14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4
      A1 B0 G1 M1 X0 IO A1          4.00      160.
15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE
  USING WIREBRUSH AT WELDTABLE AND ASIDE PF 40 ( 4 5 6 7
```

RCT2 RC M10

	A1	B0	G1	(A1	B0	P1	C1	)A1	B0	P1	A0	(40)	1.00	1240.
16	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS													
		A1	B0	G1	A6	B0	P3	A0					1.00	110.
17	FITTER MOVE CART FROM WELDTABLE TO WORKTABLE													
		A1	B0	G1	A131	B0	P1	A0					1.00	1340.
													TOTAL TMU	10200.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? RIVET RECTANGULAR TO RADIUS CORNERS

Output to line-Printer <Y Or N> ? N

(39, 1)
 FIT ● W11 RCT2RC.M11
 RIVET RECTANGULAR TO RADIUS CORNERS WITH RIVET GUN AT SHEETMETAL
 SHOP
 PER RECTANGULAR TO RADIUS CORNERS OFG: 4 13-MAY-83
 NASSCO SHEETMETAL SHAPE 9
 * 20 GAUGE GALV. SHEETMETAL
 * 10'X5' TO 8'X5' RADIUS CORNERS 12'L--
 * --WITH 1 1/2' RADIUS CORNERS
 FITTER BEGINS AT WORKTABLE

1	POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2	A1 B0 G1 A1 B0 P6 A0	2.00	180.
2	MARK RIVET HOLES FROM RIVET-HOLE-GUIDE AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (16)	1.00	840.
3	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 16	A1 B0 G1 A1 B0 P6 A0	16.00	1440.
4	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 16	A1 B0 G1 M6 X6 I0 A0	16.00	2240.
5	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABE}I F 16	A1 B0 G1 A1 B0 P6 A0	16.00	1440.
6	POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 16	A1 B0 G1 A1 B0 P6 A0	16.00	1440.
7	OPERATE RIVETGUN AT WORKTABLE PROCESS F 26	A1 B0 G1 M6 X3 I0 A0	26.00	2860.
8	POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 16	A1 B0 G1 A1 B0 P6 A0	16.00	1440.
9	GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (16)	1.00	840.
10	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS	A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0	1.00	100.
TOTAL TMU			12820.	

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H far help>?

67040

SHEET METAL SHAPE # 9

30" X 15" TO 25" X 20" RECTANGULAR TO RADIUS CORNERS

FAB	103,310	61 MIN.
MARK OUT	29,630	17 MIN.
WELD	10,740	6 MIN.
	142,680	85 MIN.

File Description ? MARK OUT RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N ? N

(39, 1)

FIT 0 W11

RCT2RC.M30

MARK OUT SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITH AWL AT
SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 16 GAUGE GALV. SHEETMETAL

* 30'X15' TO 25'X20' RADIUS CORNERS 40'L--

* --WITH 5' RADIUS CORNERS

* MARK OUT WITH TEMPLATE

FITTER BEGINS AT WORKTABLE

- 1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 2
A1 B0 G1 A3 B0 P6 A0 2.00 200.
- 2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT
WORKTABLE WITH 3 STEPS F 8
A1 B0 G1 A6 B0 P6 A0 8.00 1120.
- 3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 (4 5 6
7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (16) 1.00 2920.
- 4 POSITION CPUNCH FROM 'WORKTABLE TO TEMPLATE AT WORKTABLE
F 40
A1 B0 G1 A1 B0 P6 A0 40.00 3 6 0 0 .
- 5 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING
HAMMERA AT WORKTABLE AND ASIDE PF 40 (4 5 6 7)
A1 B0 G1 (A1 B0 P0 P3)A1 B0 P1 A0 (40) 1.00 1640.
- 6 REMOVE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE
WITH 3 STEPS F 8
A1 B0 G1 A6 B0 P1 A0 8.00 720,
- 7 REMOVE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 2 STEPS F 2
A1 B0 G1 A3 B0 P1 A0 2.00 120.
- 8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (16) 1.00 2920.
- 9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 84 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (84) 1.00 4240.
- 10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7
)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52) 1.00 2640.
- 11 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (5) 1.00 1740.
- 12 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (6) 1.00 340.
- 13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE AND ASIDE PF 6 (4 5 6)

File Description ? SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS

File Description ?

Output to line-printer (Y or N> ? N

(39, 1)

FIT .Wll

RCT2RC.M31

SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITH
SMALL 8FT. SHEAR AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 16 GAUGE GALV. SHEETMETAL

* 30'X15' TO 25'X20' RADIUS CORNERS 40'L -

* WITH 5' RADIUS CORNERS

* SHEAR 1 1/2' STRIPS FOR RADIUS CORNERS

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2

A1 B0 G1 M1 X6 I0 A0 2.00 180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 15

A1 B0 G1 A1 B0 P6 A0 15.00 1350.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 15

A1 B0 G1 M1 X6 I0 A0 15.00 1350.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 10 STEPS F 2

A1 B0 G1 A16 B0 P3 A0 2.00 420.

6 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE

A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 4310.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR RADIUS FOR RECTANGULAR TO RADIUS CORNERS

utput to line-printer <Y or N> ? N

(39, 1)

FIT .W11 RCT2RC.M32

SHEAR RADIUS FOR RECTANGULAR TO RADIUS CORNERS WITH UNI-SHEAR AT
SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 16 GAUGE GALV. SHEETMETAL

* 30'X15' TO 25'X20' RADIUS CORNERS 40'L

* WITH 5' RADIUS CORNERS

FITTER BEGINS AT WORKTABLE

- 1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

- 2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE

A96 B0 G1 A96 B3 P1 A0 1.00 1970.

- 3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 8

A1 B0 G1 M6 X173I0 A0 8.00 14480.

- 4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING

SNIPS AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 C3)A1 B0 P1 A0 (16) 1.00 1160.

- 5 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 4 STRIKES

USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F10)A1 B0 P1 A0 (16) 1.00 1800 .

- 6 REPLACE SHEETHETAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

- 7 MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT

A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 20310.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H far help> ?

24,620

File Description ? FORM LAP ENDS ON RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

RCT2RC.M33

FORM LAP ENDS ON RECTANGULAR TO RADIUS CORNERS WITH

LAPOUT MACHINE AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 16 GAUGE GALV. SHEETMETAL

* 30'X15' TO 225'X20' RADIUS CORNERS 40'L

* WITH 5' RADIUS CORNERS

* TWO FITTERS ARE REQUIRED

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 4

A1 B0 G1 A6 B0 P3 A0 4.00 440.

2 PUSH LAPOUT-SWITCH PROCESS F 4

A1 B0 G1 M1 X16 I0 A0 4.00 760.

3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 2 STEPS
F 4

A3 B0 G1 M1 X0 I3 A0 4.00 320.

4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 4

A1 B0 G1 A6 B0 P3 A0 4.00 440.

5 MOUE CART WITH SHEETMETAL FROM LAPOUT TO CORNICEBRAKE

A1 B0 G1 A32 B0 P1 A0 1.00 350.

TOTAL TMU 2310,

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H far help> ?

26,930

File Description ? FORM RADIUS ON COLLARS FOR RECT. TO RADIUS CORNERS

File Description. ?

Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11

RCT2RC.M35

FORM RADIUS ON COLLARS FOR RECTANGULAR TO RADIUS CORNERS WITH
HAND OPERATED ROLLER AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 16 GAUGE GALV. SHEETMETAL

* 30'X15' TO 25'X20' RADIUS CORNERS 40'L

* WITH 5' RADIUS CORNERS

FITTER BEGINS AT WORKBENCH

1 POSITION SHEETMETAL FROM CART AT WORKBENCH TO
HAND-ROLLER AT WORKBENCH WITH 4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT WORKBENCH 3 SPINS
USING FINGERS F 4

A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0 4.00 400.

3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 8

A1 B0 G1 M6 X0 I0 A0 8.00 640.

4 PLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO
SHEETMETAL AT WORKBENCH F 8

A1 B0 G1 A67 B3 P3 A0 8.00 6000.

5 REPLACE SHEETMETAL2 FROM WORKBENCH TO CART AT WORKBENCH

A67 B3 G1 A6 B0 P3 A0 1.00 800.

6 MOVE CART WITH SHEETMETAL2 FROM WORKBENCH TO PANBRAKE

A1 B0 G1 A32 B0 P1 A0 1.00 350.

TOTAL TMU 8330.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

86.170

File Description ? BEND LAP ENDS FOR RECTANGULAR TO **RADIUS CORNERS**

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( 39, 1)
FIT      .W11                                RCT2RC.M36
      BEND LAP ENDS FOR RECTANGULAR TO RADIUS CORNERS WITH PAN BRAKE AT
SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS                                OFG: 4 17-MAY-83
      NASSCO SHEETMETAL SHAPE 9
      * 16 GAUGE GALV. SHEETMETAL
      * 30'X15' TO 25*X20' RADIUS CORNERS 40'L
      * WITH 5'   RADIUS CORNERS
      * KINK UP LAP ENDS ON PAN BRAKE
      FITTER BEGINS AT PANBRAKE
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1	POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P6 A0	2.00	250.
2	FASTEN NUT [JAWS] ON SHEETMETAL AT PANBRAKE 5 WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE	A1 B0 G1 A1 B0 P3 F16 A1 B0 P1 A0	1.00	240 .
3	OPERATE PANBRAKE-LEVER PROCESS F 6	A1 B0 G1 M6 X96 I0 A0	6.00	6240.
4	REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110 .
5	MOVE CART WITH SHEETMETAL FROM PANBRAKE TO WORKTABLE	A1 B0 G1 A54 B3 P1 A0	1.00	600 .
		TOTAL TMU		7470 .

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

93,640

File Description ? ASSEMBLE RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

 $(39, 1)$

F1T ● W11

RCT2RC.M37

ASSEMBLE RECTANGULAR TO RADIUS CORNERS WITH RIVET GUN AT

SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 16 GAUGE GLAV. SHEETMETAL

* 30'X15' TO 25'X20' RADIUS CORNERS 40'L

* WITH 5' RADIUS CORNERS

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
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2 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE

A1	B0	G1	A1	B0	P6	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

3 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING
VISEGRIPS AT WORKTABLE AND ASIDE PF 2 (4 5 6 7

A1	B0	G1	(A1	B0	P3	C1)A1	B0	P1	A0	(2)	1.00	140.
----	----	----	-----	----	----	----	-----	----	----	----	-----	------	------

4 FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3
WRIST-STROKES USING CHUCKKEY AND ASIDE

A1	B0	G1	A1	B0	P3	F10	A1	B0	P1	A0		1.00	180.
----	----	----	----	----	----	-----	----	----	----	----	--	------	------

5 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 2

A1 B0 G1 A1 B0 P6 A0 2.00 180.

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6 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2

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A1	B0	G1	M6	X6	I0	A0	2.00	280 .
----	----	----	----	----	----	----	------	-------

7 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 2

A1	B0	G1	A1	B0	P6	A0	2.00	180.
----	----	----	----	----	----	----	------	------

8 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 2

A1	B0	G1	A1	B0	P6	A0	2.00	180.
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9 OPERATE RIVETGUN AT WORKTABLE PROCESS F 2

A1	B0	G1	M6	X3	I0	A0	2.00	220.
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TOTAL TMU 1670.

Type D, EM, CT, EW, EX, L, LD,LS, M, T, W <or H for help> ?

95,310

File Description ? TACK RADIUS CORNERS ON RECT. TO RADIUS CORNERS

utput to line-printer <Y or N> ? N

(39, 1)

FIT • W11

RCT2RC.M38

TACK RADIUS CORNERS ON RECTANGULAR TO RADIUS CORNERS WITH

TACK WELDER AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

- * 16 GAUGE GALV. SHEETMETAL
- * 30'X15' TO 25'X20' RADIUS CORNERS
- * 40'L WITH 5' RADIUS CORNERS
- * COMPLETE WELDING IN MWELD PROGRAM
- * WELDING DONE IN WELD BOOTH AREA
- * SEE RCT2RC.M39

FITTER BEGINS AT WORKTABLE

1	MOVE CCLAMPS , SHEETMETAL FROM WORKTABLE TO WELDOUT		
	A1 B0 G1 A54 B3 P1 A0	1.00	600.
2	POSITION SHEETMETAL FROM WELDOUT TO SHEETMETAL AT WELDOUT F 4		
	A1 B0 G1 A1 B0 P6 A0	4.00	360.
3	GRIP SHEETMETAL AT WELDOUT USING CCLAMPS AT WELDOUT AND ASIDE PF 12 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (12)	1.00	640.
4	POSITION TACKWELDER TO SHEETMETAL AT WELDOUT F 24		
	A1 B0 G1 A1 B0 P6 A0	24.00	2160.
5	OPERATE TACKWELDER PROCESS F 24		
	A1 B0 G1 M6 X3 I0 A0	24.00	2640.
6	HOVE SHEETMETAL2, CCLAMPS FROM WELDOUT TO WORKTABLE		
	A1 B0 G1 A54 B3 P1 A0	1.00	600.
	TOTAL TMU		7000.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

102310

File Description ? WELD RECTANGULAR TO RADIUS CORNERS

Output to line-minter <Y or N> ? N

(39, 3)

WELD 0 W01

RCT2RC.M39

WELD RECTANGULAR TO RADIUS CORNERS WITH TIG-WELDER AT SHEETMETAL
SHOP WELDING BOOTH

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 14-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 9

* 16 GAUGE GALV. SHEETMETAL

* 30X15 TO 25X02 RADIUS CORNERS 40' LG

* --WITH 5' RADIUS CORNERS

* WELDING DONE IN WELD AREA BOOTH

* GAS TUNGSTEN ARC WELDING

* WORK PERFORMED BY WELDOR

* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	FITTER MOVE CART FROM WORKTABLE TO WELDTABLE		
	A1 B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 B0 G1 M1 X0 I0 A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	0 D A1 B0 G1 M1 X0 I0 A1	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND		
	A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0	1.00	70.
7	WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M3 X0 I0 A1	1.00	60.
8	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4		
	A3 B3 G1 A1 B0 P6 A0	4.00	560.
9	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4		
	A1 B0 G1 M1 X10 I0 A0	4.00	520.
10	WELDOR POSITION WELDROD WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE (F 4)		
	A1 B0 G1 A1 B0 P6 A0	4.00	360.
11	PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 4		
	A1 B0 G1 M1 X0 I0 A1	4.00	160.
12	WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE WITH PARTIAL BEND (F 4)		
	A1 B0 G1 A1 B6 P6 A0	4.00	600 .
13	OPERATE WELD STINGER-BUTTON1 PROCESS F 4		
	A1 B0 G1 M6 X81 I0 A0	4.00	3960.
14	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4		
	A1 B0 G1 M1 X0 I0 A1	4.00	160.
15	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE		

RECTERC M39

USING WIREBRUSH AT WELDTABLE AND ASIDE PF 40 (4 5 6 7
)

	A1	B0	G1	(A1	B0	P1	C1	)A1	B0	P1	A0	(401	1.00	1240.
16	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS													
	A1	B0	G1	A6	B0	P3	A0						1.00	110.
17	FITTER MOVE CART FROM WELDTABLE TO WORKTABLE													
	A1	B0	G1	A131B0	P1	A0							1.00	1340.
													TOTAL TMU	10740.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? RIVET RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

 $(39, 1)$

F1T ● W11

RCT2RC.M40

RIVET RECTANGULAR TO RADIUS CORNERS WITH RIVET GUN AT SHEETMETAL

SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 16 GAUGE GALV. SHEETMETAL

* 30'X15' TO 25'X20' RADIUS CORNERS

* 40' L WITH 5' RADIUS CORNERS

* SEAL RIVET HEADS AND SEAMS WITH SEALANT

FITTER BEGINS AT WORKTABLE

1 POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE WITH 3 STEPS F 2

A1	B0	G1	A6	B0	P6	A0	2.00	280.
----	----	----	----	----	----	----	------	------

2 MARK RIVET HOLES FORM RIVET-HOLE-GUIDE AT WORKTABLE 1
DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4
5 6 7)

A1	B0	G1	(A1	B0	P1	R3)A1	B0	P1	A0	(52)	1.00	2640.
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3 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 52

A1	B0	G1	A3	B0	P6	A0	52.00	5720.
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4 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 52

A1	B0	G1	M6	X6	I0	A0	52.00	7280.
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5 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 52

A1	B0	G1	A1	B0	P6	A0	52.00	4680.
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6 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 52

A1	B0	G1	A1	B0	P6	A0	52.00	4680.
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7 OPERATE RIVETGUN PROCESS F 52

A1	B0	G1	M6	X3	I0	A0	52.00	5720.
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8 POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 52

A1	B0	G1	A1	B0	P6	A0	52.00	4680.
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9 GRIP SEALANT TO SHEETHETAL AT WORKTABLE USING
CAULKINGGUN AND ASIDE F 52

A1	B0	G1	A1	B0	P3	C1	A1	B0	P1	A0	52.00	4680.
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10 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

A0	B0	G0	A0	B0	P0	T10	A0	B0	P0	A0	1.00	100.
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TOTAL TMU 40460.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

143, 470



MOST[®] COMPUTER SYSTEMS
Title and Method Specification Sheet

Acnt. 39,1 (3)
Date 5-9-83
Sign. YOUNG
Page 1

Project/Assignment:

MARK OUT SHEETMETAL FOR RECTANGLE TO RADIUS CORNERS

TITLE (• REQUIRED)		SPECIAL CONDITIONS / • KEYPOINTS			
• ACTIVITY: <u>MARK</u>		<u>N.A.S.S.C.O. SHEETMETAL SHAPE #9</u>			
• OBJECT: <u>SHEETMETAL</u>		<u>* 16 GAUGE GALV. 30 X 15 TO 25 X 20 RADIUS CORNERS 40</u>			
<input type="checkbox"/> IN <input type="checkbox"/> ON <input type="checkbox"/> FOR		<u>WITH 5" RADIUS CORNERS</u>			
PRODUCT/EQUIPMENT:		<u>* MARK OUT WITH TEMPLATE</u>			
TOOL: <u>AWL</u>		DATA UNIT TO BE FILED	TEMPORARY FILE NAME/NO.	DELETE YES NO	
• <input type="checkbox"/> TO <input type="checkbox"/> AT		WORK AREA LAYOUT	<u>Fit W.O. #11</u>	<input type="checkbox"/>	<input type="checkbox"/>
SIZE/CAPACITY:		MOST ANALYSIS	<u>Rect. 2 P.C. M.O. #30</u>	<input type="checkbox"/>	<input type="checkbox"/>
• WORK AREA ORIGIN: <u>SHOP</u>		COMBINED SUB-OP.		<input type="checkbox"/>	<input type="checkbox"/>
WORK AREA NUMBER:		TITLE SHEET		<input type="checkbox"/>	<input type="checkbox"/>
• UNIT: <u>PER RECTANGLE TO RADIUS CORNERS</u> QFG: <u>4</u>					
• OPERATOR: _____ • BEGINS: _____ (If blank, use default beginning Operator and Location.)		DATE FILED	LOC. NO.	DATA COORDINATE	
NO.	KEYWORD / METHOD DESCRIPTION	< SIMO > (PF) F			
1.	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F-2				
2	POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE F-8				
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE & ASIDE P.F.-16				
4	POSITION C PUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F-40				
5	FASTEN C PUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE P.F.-40				
6	REMOVE WEIGHTS FROM TEMPLATE TO WORKTABLE AT WORKTABLE F-8				
7	REMOVE TEMPLATE FROM SHEETMETAL TO WORKTABLE AT WORKTABLE F-2				
8	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING RED PEN AT WORKTABLE AND ASIDE P.F.-16				
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACK PEN AT WORKTABLE AND ASIDE P.F.-84				
10	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACK PEN AT WORKTABLE AND ASIDE P.F.-52				
11	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL TAPE AT WORKTABLE AND ASIDE P.F.-5				
12	MARK DIMENSION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE P.F.-6				

30 X 15 TO 25 X 20



Cont.

[illegible]

Kenwood W3U 1-11-53

U. S. DEPARTMENT OF AGRICULTURE

SHEET METAL SHAPE # 9

20" x 12" to 16" x 8" RECTANGULAR to RADIUS CORNERS

<u>FAB</u>	<u>36570</u>	<u>22 MIN.</u>
<u>MARK OUT</u>	<u>23000</u>	<u>13 MIN</u>
<u>WELD</u>	<u>39710</u>	<u>23. MIN.</u>
<u>TOTAL TMU.</u>	<u>99280</u>	<u>60 MIN</u>

File Description ? MARK OUT RECTANGULAR TO RADIUS CORNERS

utput to line-printer <Y or N> ? N

(39, 1)

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FIT .W11 RCTZRC.M50
MARK OUT RECTANGULAR TO RADIUS CORNERS WITH AWL AT SHEETMETAL
SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83
NASSCO SHEETMETAL SHAPE 9
* 1# GAUGE GALV. SHEETMETAL
* 20'x12' TO 16'x8' RADIUS CORNER 30'L
'4 WITH 2' RADIUS CORNERS
* MARK OUT USING TEMPLATE
FITTER BEGINS AT WORKTABLE

```

- 1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 2
A1 B0 G1 A3 B0 P6 A0 2.00 220.
- 2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT
WORKTABLE WITH 3 STEPS F 6
A1 B0 G1 A6 B0 P6 A0 6.00 840.
- 3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 (4 5 6
7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (16) 1.00 2920.
- 4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 30
A1 B0 G1 A1 B0 P6 A0 30.00 2700.
- 5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER AT WORKTABLE AND ASIDE PF 30 (4 5 6 7)
A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (30) 1.00 1240.
- 6 REMOVE WEIGHTS FROM TEMPLATES AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 6
A1 B0 G1 A6 B0 P1 A0 6.00 540.
- 7 REMOVE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P1 A0 2.00 180.
- 8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (16) 1.00 2920.
- 9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE
A1 B0 G1 A1 B0 P1 R3 A1 B0 P1 A0 1.00 90.
- 10 MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 52 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52) 1.00 2640.
- 11 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (5) 1.00 1740.
- 12 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (5) 1.00 290.
- 13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS

	A1 B0 G1 A3 B0 P6 A0	1.00	110.
14	MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (5)	1.00	290.
15	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REOPEN AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (5)	1.00	940.
16	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 32 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (32)	1.00	1640.
17	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	1640.
18	PLACE SHEETMETAL 2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220 .
19	MOUE CART WITH SHEETMETAL FROM WORKTABLE TO 14FT. SHEAR		
	A1 B0 G1 A81 B0 P1 A0	1.00	840.
		TOTAL TMU	23000.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description? SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS

File Description ?

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 RCT2RC.M51
SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITH
14FT. SHEAR AT SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83
NASSCO SHEETMETAL SHAPE 9
* 11 GAUGE GALV. SHEETMETAL
* 20'X12' TO 16'X3' RADIUS CORNERS 30'L
* WITH 2' RADIUS CORNERS
FITTER BEGINS AT 14FT.SHEAR

1	POSITION SHEETMETAL2 FROM CART AT 14FT. SHEAR TO 14FT. SHEAR WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 2	A1 B0 G1 M1 X3 IO A0	2.00	120.
3	POSITION SHEETMETAL2 FROM 14FT. SHEAR TO 14FT. SHEAR F 15	A1 B0 G1 A1 B0 P6 A0	15.00	1350.
4	PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 15	A1 B0 G1 M1 X3 IO A0	15.00	900.
5	REPLACE SHEETMETAL FROM 14FT. SHEAR TO CART AT 14FT. SHEAR WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOUE CART WITH SHEETMETAL2 FROM 14FT. SHEAR TO WORKTABLE	A1 B0 G1 A81 B3 P1 A0	1.00	870 e
TOTAL TMU				3630.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? CUT RADIUS FOR RECTANGULAR TO RADIUS CORNERS

Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11

RCT2RC.M52

CUT RADIUS FOR RECTANGULAR TO RADIUS CORNERS WITH SABER-SAW AT
SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

* 11 GAUGE GALV. SHEETMETAL

* 20'X12' TO 16'X8' RADIUS CORNERS

* 30'1 WITH 2' RADIUS CORNERS

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 MOVE SABER-SAW2 , SAW-BLADES2 FROM TOOLROOM TO
WORKTABLE

A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 FASTEN NUT [SAW BLADES] AT WORKTABLE 4 WRIST-TURNS
USING ALLEN-WRENCH AT WORKTABLE AND ASIDE PF 4 (4 5 6
7)

A1 B0 G1 (A1 B0 P3 F10)A1 B0 P1 A0 (4) 1.00 600.

4 OPERATE SABER-SAW AT WORKTABLE PROCESS F 3

A1 B0 G1 M6 X67 I0 A0 3.00 2250.

5 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES
USING HAMMER AT-WORKTABLE AND ASIDE PF 16 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (16) 1.00 1160.

6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

7 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO
14FTHYDROPRESSBRAKE

A1 B0 G1 A96 B0 P1 A0 1.00 990.

TOTAL TMU 7190.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

16820

File Description ? BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

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( 39, 1)
FIT      .W11                      RCT2RC.M53
      BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS WITH
14FT. HYDRO-PRESS-BRAKE AT SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS                      OFG:  4 17-MAY-83
      NASSCO SHEETMETAL SHAPE 9
      * 11 GAUGE GALV. SHEETMETAL
      * 20'X12' TO 16'X8' RADIUS CORNERS
      * 30'L WITH 2' RADIUS CORNERS
      * KINK DOWN LAP ENDS
      FITTER BEGINS AT 14FTHYDROPPRESSBRAKE

1 POSITION SHEETMETAL FROM CART AT 14FTHYDROPPRESSBRAKE
  TO 14FTHYDROPPRESSBRAKE WITH 2 STEPS F 2
      A1  B0  G1  A3  B0  P6  A0          2.00      220.
2 PUSH 14FTHYDROPPRESSBRAKE-FOOTPEDAL PROCESS F 2
      A1  B0  G1  M1  X24  I0  A0          2.00      540.
3 POSITION SHEETMETAL FROM 14FTHYDROPPRESSBRAKE TO
  14FTHYDROPPRESSBRAKE F 40
      A1  B0  G1  A1  B0  P6  A0          40.00     3600.
4 PUSH 14FTHYDROPPRESSBRAKE-FOOTPEDAL PROCESS F 40
      A1  B0  G1  M1  X24  I0  A0          40.00    10800.
5 REPLACE SHEETMETAL FROM 14FTHYDROPPRESSBRAKE TO CART AT
  14FTHYDROPPRESSBRAKE WITH 4 STEPS
      A1  B0  G1  A6  B0  P3  A0          1.00      110.
6 MOUE CART WITH SHEETMETAL FROM 14FTHYDROPPRESSBRAKE TO
  ROLLER
      A1  B0  G1  A54  B0  P1  A0          1.00      570.

                                TOTAL  TMU          15840.
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

26660

T

Please input file <RCT2RC.M54> ?

File Description ? FORM RADIUS FOR COLLAR FOR RECT. TO RADIUS CORNERS

File Description ?

Output to line-Printer <Y or N> ? N

(39, 1)
FIT .W11 RCT2RC.M54
FORM RADIUS FOR COLLAR ON RECTANGULAR TO RADIUS CORNERS WITH
ROLLER (ROLL FORMER) AT SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 18-MAY-83

NASSCO SHEETMETAL SHAPE 9
* 11 GAUGE GALV. SHEETMETAL
* 20'X12' TO 16'X8' RADIUS CORNERS 30'L
* WITH 2' RADIUS CORNERS
* COMPLETE IN WELD BOOTH AREA
* SEE RCT2RC.M55
* COMPLETE WITH MWELD
FITTER BEGINS AT ROLLER

1	PLACE SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3 WRIST-TURNS USING HAND F 2	A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0	2.00	200.
3	PUSH ROLLER-BUTTON PROCESS F 8	A1 B0 G1 M1 X96 I0 A0	8.00	7920.
4	PLACE SHEETMETAL FROM ROLLER TO SHEETMETAL AT ROLLER WITH 2 STEPS F 8	A1 B0 G1 A3 B0 P3 A0	8.00	640.
5	REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH 4 STEPS F 4	A1 B0 G1 A6 B0 P3 A0	4.00	440.
6	MOUE CART WITH SHEETMETAL FROM ROLLER TO WORKTABLE	A1 B0 G1 A54 B3 P1 A0	1.00	600.
			TOTAL TMU	9910.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

36,570

File Description ? WELD RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

(39,101)

WELD .W01

RCT2RC.M55

WELD RECTANGULAR TO RADIUS CORNERS WITH ARC (STICK) WELDER AT SHEETMETAL SHOP WELDING BOOTH

PER RECTANGULAR TO RADIUS CORNERS

OF-G: 4 20-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 9

* 11 GAUGE GALV. SHEETMETAL

* 20'X12' TO 16'X8' RADIUS CORNERS 30' L

* ---WITH 2' RADIUS CORNERS

FITTER BEGINS AT WORKTABLE

FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS F 2

	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FITTER MOUE CART FROM WORKTABJ%ATO WELDTABLE		
	A1 B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220 .
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 B0 G1 M1 X0 I0 A32	1.00	370.
5	WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M3 X0 I0 A1	1.00	60.
6	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 6		
	A3 B3 G1 A1 B0 P6 A0	6.00	840.
7	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 6		
	A1 B0 G1 M1 X10 I0 A0	6.00	780.
8	WELDOR FASTEN WELDROD TO STINGER AT WELDTABLE 1 WRIST-TURN USING HAND F 18		
	A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0	18.00	1260.
9	PULL WELDHOO FROM UP AT WELDOR TO DOWN AT WELDOR F 18		
	A1 B0 G1 M1 X0 I0 A1	18.00	720.
10	WELDOR POSITION STINGER-BUTTON1 FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 18		
	A1 B0 G1 A1 B0 P6 A0	13.00	1620.
11	OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F 14		
	A1 B0 G1 M6 X173I0 A0	14.00	25340.
12	PUSH WELDHOO FROM DOWN AT WELDOR TO UP AT WELDOR F 18		
	A1 B0 G1 M1 X0 I0 A1	18.00	720 .
13	WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND ASIDE PF 7 (4 5 6 7)		
	A1 B0 G1 (A1 B0 PO L16)A1 B0 P1 A0 (7)	1.00	1230.
14	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10 ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF 28 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 C10)A1 B0 P1 A0 (28)	1.00	3400 .
15	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2		

	A1	B0	G1	A6	B0	P 3	A0	2.00	220.
16	FITTER	MOUE	CART	FROM	WELDTABLE	TO	WORKTABLE		
	A1	B0	G1	A131	B0	P1	A0	1.00	1340.
								TOTAL	TMU
									39710.

File Description ? WELD RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N> ?

SHEET METAL SHAPE #10

10"X6" to 8"X6"X10" LG. FLAT OVAL

<u>FAB</u>	<u>68,230</u>	<u>41 MIN.</u>
<u>MARK OUT</u>	<u>30,260</u>	<u>18 MIN.</u>
<u>WELD</u>	<u>17570</u>	<u>10 MIN.</u>
<u>TOTAL</u>	<u>116,060</u>	<u>69 MIN.</u>

File Description ? MARK OUT FLAT OVAL TO RADIUS CORNERS

utput to line-printer <Y or N> ? N

(39, 1)

FIT .W11

F02RC . M01

MARK OUT SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH AWL AT SHEETMETAL SHOP

PER FLATOVAL TO RADIUS CORNERS

OFG: 4 05-MAY-83

NASSCO SHEETMETAL SHAPE 10

* 22 GAUGE GALV. SHEETMETAL

* 10'X6' R.C. TO 8'X6' F.O. 10'L

* MARK OUT FLAT OVAL WITH TEMPLATE

* MARK OUT R.C. & COLLAR WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0

2.00

280.

2 POSITION WEIGHTS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 4

A1 B0 G1 A6 B0 P6 A0

4.00

5 6 0 .

3 MARK SHEETMETAL FROM TEMPLATE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 10 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (10)

1.00

1840.

4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F 64

A1 B0 G1 A1 B0 P6 A0

64.00

5760.

5 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 64 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (64)

1.00

2600.

6 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 4

A1 B0 G1 A6 B0 P3 A0

4.00

4 4 0 .

7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0

2.00

220.

8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 10 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R16 >A1 B0 P1 A0 (10)

1.00

1840.

9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 86 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (86)

1.00

4340,

10 MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (53)

1.00

2640.

11 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (3)

1.00

1060.

12 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING-AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (6)

1.00

340.

13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 5

A1 B0 G1 A6 B0 P6 A0

5.00

7 0 0 .5

MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS					
!!	USING AWL AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)				
	A1	B0	G1	(A1 B0 P1 R16)A1 B0 P1 A0 (5)	1.00 940 .
MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT					
15	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND				
	ASIDE PF 86 (4 5 6 7)				
	A1	B0	G1	(A1 B0 P1 R3)A1 B0 P1 A0 (86)	1.00 4340.
16	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT				
	USING BLACKPEN AT WORKTABLE AND ASIDE PF 28 (4 5 6 7				
	A1	B0	G1	(A1 B0 P1 R3)A1 B0 P1 A0 (28)	1.00 1440.
17	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE				
	WITH 4 STEPS F 2				
	A1	B0	G1	A6 B0 P3 A0	2.00 220.
18	MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR				
	A1	B0	G1	A67 B0 P1 A0	1.00 700.
				TOTAL TMU	30260.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

18 min

File Description ? SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS

utput to line-Printer <Y or N> ? N

(39, 1)

FIT .W11

F02RC.M02

SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH
SMALL 8FT. SHEAR AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS OCRNERS

OFG: 4 05-MAY-83

NASSCO SHEETMETAL SHAPE 10

* 22 GAUGE GALV. SHEETMETAL

* 10'X6'R.C. TO 8'X6'F.O. 10' L

* SHEAR 1 1/2' STRIPS FOR CORNERS

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2

A1 B0 G1 M1 X6 I0 A0 2.00 180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
2! STEPS F 14

A1 B0 G1 A3 B0 P6 A0 14.00 1540.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 14

A1 DO G1 M1 X6 I0 A0 14.00 1260.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 10 STEPS F 2

A1 B0 G1 A16 B0 P3 A0 2.00 420.

6 MOUE CART WITH SHEETMETAL FROM SWALLSHEAR TO WORKTABLE

A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 4410.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

700 ~~700~~ 4410 = 5110

Invalid File Name.

Please input **file** <R02RC>.M03 > ?

File Description ? SHEAR RADIUS FLAT OVAL TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 R02RC .M03
SHEAR SHEETMETAL FOR RADIUS FLAT OVAL TO RADIUS CORNERS WITH
UNI-SHEAR AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 01-JUL-83
NASSCO SHEETMETAL SHAPE 10
* 22 GAUGE GALV. SHEETMETAL
* 10'X6' TO 8'X6' R.C./F.O. 10'L
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2

	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2 MOVE UNI-SHEAR2 FROM TOOLROOM TO WORKTABLE	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3 OPERATE UNISHEAR PROCESS F 10	A1 B0 G1 M6 X173I0 A0	10.00	18100.
4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPES AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C3)A0 B0 P1 A0 (8)	1.00	600.
5 FASTEN (FLATTEN) CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 20 (4 5 6 7)	A1 B0 G1 (A1 B0 PO F6)A1 B0 P1 A0 (20)	1.00	1440.
6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
7 MOVE CART FROM WORKTABLE TO LAPOUT	A1 B0 G1 A54 B0 P1 A0	1.00	570,

TOTAL TMU 23010.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

28/20

File Description ? FORM LAP ENDS FOR FLAT OVAL TO RADIUS CORNERS

Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11

F02RC.M04

FORM LAP ENDS FOR FLAT OVAL TO RADIUS CORNERS WITH LAPOUT MACHINE

AT SHEETMETAL SHOP

PER FLAT OVAL TO RADIUS CORNERS

OFG: 4 01-JUL-83

NASSCO SHEETMETAL SHAPE 10

* 22 GAUGE GALV. SHEETMETAL

* 10'X6' TO 8'X6'R.C./F.O. 10'L

FITTER BEGINS AT LAPOUT

1 POSITION SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH
4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 OPERATE LAPOUT-SWITCH PROCESS F 2

A1 B0 G1 M6 X16 I0 A0 2.00 480.

3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 3 STEPS
F 2

A6 B0 G1 M1 X0 I3 A0 2.00 220.

4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

5 HOVE CART FROM LAPOUT TO HAND-ROLLER AT WORKBENCH

A1 B0 G1 A24 B3 P1 A1 1.00 300.

TOTAL TMU 1500,

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

29620

File Description ? ROLL UP FLAT OVAL AND RADIUS CORNERS

utput to line-printer <Y or N> ? N

(39, 1)

FIT .W11

F02RC .MO5

FORM SHEETMETAL FOR FLAT OVAL AND RADIUS CORNERS WITH HAND ROLLER
AT SHEETMETAL SHOP

PER FLAT OVAL TO RADIUS CORNERS

OFG: 4 OS-MAY-83

NASSCO SHEETMETAL SHAPE 10

* 22 GAUGE GALV. SHEETMETAL

* 10'X6' TO 8'X6' RADIUS CORNER TO

* FLAT OVAL 10' L

FITTER BEGINS AT WORKBENCH

1 POSITION SHEETMETAL FROM CART AT WORKBENCH TO

WORKBENCH WITH 4 STEPS F 6

A1	B0	G1	A6	B0	P6	A0	6.00	840.
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2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT HAND-ROLLER AT

WORKBENCH 3 SPINS USING FINGERS AT WORKBENCH F 10

A1	B0	G1	A1	B0	P1	F6	A0	B0	P0	A0	10.00	1000.
----	----	----	----	----	----	----	----	----	----	----	-------	-------

3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS F 12

A1	B0	G1	M6	X0	I0	A0	12.00	960.
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4 REPLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO

CART AT WORKBENCH WITH 4 STEPS F 6

A1	B0	G1	A6	B0	P3	A0	6.00	660.
----	----	----	----	----	----	----	------	------

5 MOVE CART WITH SHEETMETAL FROM WORKBENCH TO LEAFBRAKE

A1	B0	G1	A10	B0	P1	A0	1.00	130.
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TOTAL	TMU	3590,
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

33,210

(39, 1)
 FIT .W11 F02RC.M06
 BEND SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH LEAFBRAKE AT
 SHEETMETAL SHOP
 PER FLAT OVAL TO RADIUS CORNERS OFG: 4 06-MAY-83
 NASSCO SHEETMETAL SHAPE 10
 * 22 GAUGE GALV. SHEETMETAL
 * 10'X6' TO 8'X6' RADIUS CORNERS TO
 * FLAT OVAL 10'L
 FITTER BEGINS AT WORKTABLE

1	MOVE VISEGRIPS FROM WORKTABLE TO LEAFBRAKE		
	A1 B0 G1 A81 B0 P1 A0	1.00	840.
2	GRIP ADJUSTMENT ROD ON LEAFBRAKE USING VISEGRIPS AND ASIDE		
	A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0	1.00	90.
3	POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
4	OPERATE LEAFBRAKE-LEVER PROCESS F 2		
	A1 B0 G1 M6 X16 I0 A0	2.00	480.
5	POSITION SHEETMETAL2 FROM LEAFBRAKE TO LEAFBRAKE F 5437		
	A1 B0 G1 A1 B0 P6 A0	54.00	4860.
6	OPERATE LEAFBRAKE-LEVER PROCESS F 54		
	A1 B0 G1 M6 X16 I0 A0	54.00	12960.
7	REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
8	MOVE CART WITH SHEETMETAL AND VISEGRIPS FROM LEAFBRAKE TO WORKTABLE.		
	A1 B0 G1 A81 B3 P1 A0	1.00	870.
		TOTAL TMU	20600.

Type D, EM, CT, EX, T, W <or H for help> ?

53,810

37.

74

File Description ? ASSEMBLE FLAT OVAL TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

(3.3 9,1)

FIT .W11 F02RC.M07
 ASSEMBLE SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH
 RIVET GUN AT SHEETMETAL SHOP
 PER FLAT OVAL TO RADIUS CORNERS OFG: 4 06-MAY-83

NASSCO SHEETMETAL SHAPE 10
 * 22 GAUGE GALV. SHEETMETAL
 * 10'X6' TO RADIUS CORNERS TO
 * FLAT OVAL 10' L
 * LEAVE-TOP LOOSE UNTIL --
 I RADIUS FOR FLAT OVAL IS WELDED
 FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
3	GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE F 2		
	A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0	2.00	180.
4	FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE		
	A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0	1.00	140.
5	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2		
	A1 B0 G1 A1 B0 P6 A0	2.00	180.
6	OPERATE DRILLMOTOR PROCESS F 2		
	A1 B0 G1 M6 X6 I0 A0	2.00	280.
7	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2		
	A1 B0 G1 A1 B0 P6 A0	2.00	180.
a	OPERATE RIVETGUN PROCESS F 2		
	A1 B0 G1 M6 X3 I0 A0	2.00	220.
TOTAL TMU			1540.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

55,350

File Description ? TACK WELD FLAT OVAL TO RADIUS CORNERS

Ouput to line-Printer <Y or N> ? N

(39, 1)

FIT ● W11

F02RC.MO8

WELD SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH TACK WELDER
AT SHEETMETAL SHOP

PER FLAT OVAL TO RADIUS CORNERS

OFG: 4 01-JUL-83

NASSCO SHEETMETAL SHAPE 10

* 22 GAUGE GALV. SHEETMETAL

* 10'X6'TO 8'X6' RADIUS CORNERS TO

* FLAT OVAL 10'L

* HOLD R. CORNERS TO ASSEMBLY WITH CCLAMPS

* MOUE TO WELD AREA ON NEXT ANALYSIS

* WELD R. CORNERS & FLAT OVAL TO ASSEMBLY

FITTER BEGINS AT WORKTABLE

1 MOVE CCLAMPS , SHEETMETAL FROM WORKTABLE TO WELDOUT

A1 B0 G1 A54 B3 P1 A0

1.00 600.

2 POSITION SHEETMETAL FROM TABLE AT WELDOUT TO
SHEETMETAL AT WELDOUT WITH 3 STEPS

A1 B0 G1 A6 B0 P6 A0

1.00 140.

3 GRIP SHEETMETAL TO SHEETMETAL AT WELDOUT USING
CCLAMPS AT WELDOUT AND ASIDE PF 20 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (20)

1.00 1040.

4 OPERATE TACKWELDER PROCESS F 28

A1 B0 G1 M6 X3 I0 A0

28.00 3080.

5 MOVE CCLAMPS , SHEETMETAL FROM WELDOUT TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0

1.00 600.

TOTAL TMU 5460.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

69,810

File Description ? RIVET FLAT OVAL TO RADIUS CORNERS

Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11

F02RC.M09

RIVET FLAT OVAL TO RADIUS CORNERS WITH RIVET GUN AT SHEETMETAL



PER FLAT OVAL TO RADIUS CORNERS

OFG: 4 01-JUL-83

NASSCO SHEETMETAL SHAPE 10

* 22 GAUGE GALV. SHEETMETAL

* 10'X6' RADIUS CORNERS TO 8'X6' FLAT OVAL

* COMPLETE RIVETING AFTER FLAT OVAL 10'LG

* RADIUS AND RADIUS CORNERS ARE WELDED

FITTER BEGINS AT WORKTABLE

- 1 POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE WITH 2 STEPS F 2

A1 B0 G1 A3 B0 P6 A0 2.00

2 2 0 .

- 2 HARK RIVET HOLES FROM RIVET-HOLE-GUIDE TO SHEETMETAL AT
WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF
1 4 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (14) 1.00 740.

- 3 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 14

A1 B0 G1 A6 B0 P6 A0 14.00 1960.

- 4 OPERATE DRILLMOTOR PROCESS F 14

A1 B0 G1 M6 X6 I0 A0 14.00 1960.

- 5 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 14

A1 B0 G1 A1 B0 P6 A0 14.00 1260.

- 6 OPERATE RIVETGUN PROCESS F 14

A1 B0 G1 M6 X3 I0 A0 14.00 1540.

- 7 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING
CAULKINGGUN AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (8) 1.00 440.

TOTAL TMU 8120.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

68,730

File Description ? WELD FLAT OVAL TO RADIUS CORNERS

output to line-printer <Y or N> ? N

(39, 3)

WELD • W01

F02RC .M10

WELD FLAT OVAL TO RADIUS CORNERS WITH TIG-WELDER AT SHEETMETAL
SHOP WELDING BOOTH

PER FLAT OVAL TO RADIUS CORNERS

OFG: 4 14-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 10

* 22 GAUGE GALV, SHEETMETAL

* 10X6 RADIUS CORNERS TO 8X6 FLAT-

* -OVAL 10' LG

* WELDING DONE IN WELD AREA BOOTH

* GAS TUNGSTEN ARC WELDING

* WELDOR PERFORMS WORK

* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

- 1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS

A1	BO	G1	A6	BO	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

- 2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE

A1	BO	G1	A131B3	P1	A0	1.00	1370.
----	----	----	--------	----	----	------	-------

- 3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
WELDTABLE WITH 4 STEPS

A1	BO	G1	A6	BO	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

- 4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH, 16 STEPS

A3	BO	G1	M1	X0	IO	A32	1.00	370.
----	----	----	----	----	----	-----	------	------

- 5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
TO ON AT WELDMACHINES

A1	BO	G1	M1	X0	IO	A1	1.00	40.
----	----	----	----	----	----	----	------	-----

- 6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
WRIST-TURN USING HAND

A1	BO	G1	A1	BO	P1	F3	A0	BO	PO	A0	1.00	70.
----	----	----	----	----	----	----	----	----	----	----	------	-----

- 7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES

A1	BO	G1	M3	X0	IO	A1	1.00	60.
----	----	----	----	----	----	----	------	-----

- 8 WELDOR POSITION ANTI-SPATTER SPRAY' CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE F 6

A3	B3	G1	A1	BO	P6	A0	6.00	840.
----	----	----	----	----	----	----	------	------

- 9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 6

A1	BO	G1	M1	X10	IO	A0	6.00	780.
----	----	----	----	-----	----	----	------	------

- 10 WELDOR POSITION WELDRD FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE F 6

A1	BO	G1	A1	BO	P6	A0	6.00	540.
----	----	----	----	----	----	----	------	------

- 11 PULL WELDHOO FROM UP AT WELDOR TO DOWN AT WELDOR F 6

A1	BO	G1	M1	X0	IO	A1	6.00	240.
----	----	----	----	----	----	----	------	------

- 12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 6

A1	BO	G1	A1	B6	P6	A0	6.00	900.
----	----	----	----	----	----	----	------	------

- 13 OPERATE WELD STINGER-BUTTON1 PROCESS F/9

A1	BO	G1	M6	x81	IO	A0	6.00	5340. 8010
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- 14 PUSH WELDHOO FROM DOWN AT WELDOR TO UP AT WELDOR F 6

A1	BO	G1	M1	X0	IO	A1	6.00	240.
----	----	----	----	----	----	----	------	------

- 15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE WARM-STROKE

FOZRC MIC

USING WIREBRUSH AT WELDTABLE AND ASIDE PF_ 80 4 5 6 7 .

	A1 BO G1 (A1 BO P1 C1)	A1 BO P1 A0 (80)	1.00	2440.
16	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS			
	A1 BO G1 A6 BO P3 A0		1.00	110.
17	FITTER MOVE CART FROM WELDTABLE TO WORKTABLE			
	A1 BO G1 A131BO P1 A0		1.00	1340.

TOTAL TMU ~~14900.~~
17570

TYPE D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for hel> ?-

SHEET METAL SHAPE # 10

20 x 12 to 16 x 12 x 30" LG FLAT OVAL to Regions Center

FAB.	76,090	46 MIN
MARK OUT	31,360	18 MIN
WELD	27,290	16 MIN
TOTAL	134,740	81 MIN

File Description ? MARK OUT FLAT OVAL TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

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( 39, 1)
FIT .Wll                                F02RC .M30
MARK OUT SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH AWL AT
SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS          OFG: 4 01-JUL-83
NASSCO SHEETMETAL SHAPE 10
* 18 GAUGE GALV. SHEETMETAL
* 20'X12'T'X12' FLAT OVAL TO
* RADIUS CORNERS 30'L
* MARK OUT CORNERS WITHOUT TEMPLATE
* MARK OUT FLAT OVAL WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 4 STEPS F 2
      Al BO Gl A6 BO P6 A0          2.00      280.
2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATES AT
  WORKTABLE WITH 4 STEPS F 4
      Al BO Gl A6 BO P6 A0          4.00      560.
3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 20 ( 4 5 6
  7 )
      Al BO Gl (Al BO Pl R1-6) Al BO Pl A0 (20) 1.00      3640 .
4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE.
  WITH 2 STEPS F 64
      Al BO Gl A3 BO P6 A0          64.00      7040.
5 FASTEN CFUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
  HAMMER AT WORKTABLE AND ASIDE PF 64 ( 4 5 6 7 )
      Al BO Gl (Al BO PO F3 ) Al BO Fl A0 (64) 1.00      2600.
6 REPLACE WEIGHTS FROM TEMPLATES AT WORKTABLE TO
  WORKTABLE WITH 4 STEPS F 4
      Al BO Gl A6 BO P3 A0          4.00      440 .
7 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO
  WORKTABLE WITH 4 STEPS F 2
      Al BO Gl A6 BO P3 A0          2.00      220 .
8 HARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
  USING REDPEN AT WORKTABLE.AND ASIDE PF 10 ( 4 5 6 7 )
      Al BO Gl (Al B0 Pl R16 )Al BO Fl A0 (10) 1.00      1840.
9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
  WORKTABLE 1 DIGIT USING BLACKFEN AT WORKTABLE AND
  ASIDE PF 48 ( 4 5 6 7 )
      Al BO. Gl (Al BO Fl R3 ) Al BO Pl A0 (48) 1.00      2440.
10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7
      Al BO Gl (Al BO Fl R3) Al BO Pl A0 (52) 1.00      2640.
11 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING
  STEEL-TAPE AT WORKTABLE AND ASIDE F 3
      Al BO Gl Al BO Pl M32 A1 BO Pl A0          3.00      1140,
12 MARK DIMENSION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
  AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
      Al BO Gl (Al BO Pl R3 ) Al BO Pl A0 (6) 1.00      340.
13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
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FOCKE M30

WORKTABLE WITH 3 STEPS F 5				
	A1 BO G1 A6 BO P6 A0	5.00	700 .	
14	MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)			
	A1 BO G1 (A1 BO P1 R16) A1 BO P1 A0 (5)	1.00	940 .	
15	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)			
	A1 BO G1 (A1 BO P1 R16)A1 BO P1 A0 (5)	1.00	940.	
16	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 40 (4 5 6 7)			
	A1 BO G1 (A1 BO P1 R3 A1 BO P1 A0 (40)	1.00	2040 .	
17	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7			
	A1 BO G1 (A1 BO F1 R3)A1 BO F1 A0 (52)	1.00	2640 .	
18	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2			
	A1 BO G1 A6 BO F3 A0	2.00	220 .	
19	MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR			
	A1 BO G1 A67 BO P1 A0	1.00	700.	
			TOTAL TMU	31360.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?'

File Description ? SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

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(      39      1)
FIT      .W11                      F02RC .M31
      SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH
SMALL 8FT, SHEAR AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS                      OFG: 4 01-JUL-83
      NASSCO SHEETMETAL SHAPE 10
      * 18 GAUGE GALV.SHEETMETAL
      * 20'X12' TO 16.X12' FLAT OVAL TO
      * RADIUS CORNERS 30'L
      FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
  SMALLSHEAR WITH 4 STEPS F 2
      A1 BO 61 A6 BO F6 A0          2.00      280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
      A1 BO G1 M1 X6 IO A0          2.00      180.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
  4 STEPS F 14
      A1 HO G1 A6 BO F6 A0          14.00     1960.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 14
      A1 BO G1 M1 X6 IO A0          14.00     1260.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
  SMALLSHEAR WITH 10 STEPS F 2
      A1 BO G1 A16 BO P3 A0          2.00      420.
6 MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
      A1 B0 G1 A67 B3 P1 A0          1.00      730.

                                     TOTAL TMU      4830.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

4830

File Description ? SHEAR RADIUS ON FLAT OVAL TO RADIUS CORNERS

output to line-printer <Y or N> ? N

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( 39 1)
FIT .W11 F02RC .M32
SHEAR RADIUS ON FLAT OVAL TO RADIUS CORNERS WITH UNI-SHEAR-AT
SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 09-MAY-83
NASSCO SHEETMETAL SHAPE 10
* 18 GAUGE GALV. SHEETMETAL
* 20.X12' TO 1b'X12' FLAT OVAL
* RADIUS CORNERS 30'L
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM-CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS F 2
      A1 BO GI 'A6 BO P3 A0 2.00 220.
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
      - - A 9 6 B O G 1 A96 B3 F1 A0 1.00 1970.
3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 10
      A1 BO G1 M6 X17310 A0 10.00 18100.
4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
  SNIPS AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
      H1 BV GI (A1 BO P3 C3 A1 BO P1 A0 (8) 1.00 600.
5 FASTEN BLCKPEN CURNERS -UN SHEET METAL AT WORKTABLE 5.
  (STRIKES--USING NAMER AT WORKTABLE AND ASIDE PF 20 ( 4
  -5 - 6-7)
      A1 BO G1 (A1 BO FO P6 )A1 BO P1 AO(20)1. 00 1440.
6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
  WITH 4 STEPS
      A1 BO G1 A6 BO P3 A0 1.00 110.
7 MOVE CART'WITH SHEETMETAL FROM WORKTABLE TO LAPOUT
      A1 BO G1 A54 BO P1 A0 1.00 570.

TOTAL TMU 23010 .
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

27840

File Description ? FORM LAP ENDS FOR FLAT OVAL TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 F02RC . M33
FORM..... LAP ENDS FOR FLAT OVAL TO RADIUS CORNERS' WITH LAPOUT MACHINE
SHEETMETAL SHUF)
~~PER FLAT OVAL TO RADIUS CORNERS~~ UFG: 4 07-081-83

NA53LU SHEETMETAL 1V
* 18 GAUGE GALV. SHEETMETAL
* 20'X12' TO 16'X12' FLAT OVAL
* RADIUS CORNERS 30.L
FITTER BEGINS AT LAPOUT

1 POSITION SHEETMETAL 2 FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 4	A1 BO G1 A6 BO P6 A0	4.00	560.
2 PUSH LAPOUT-SWITCH PROCESS F 2	-A1 B0 G1 M1 X16 IO A0	2.00	380.
3 PUSH AND GUIDE SHEETMETAL 2 THROUGH LAPOUT WITH 3 STEP'S F 2	A6 BO G1 M1 X0 13 A0	2.00	220.
4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEFS F 4	A1 BO G1 A6 BO P3 A0	4.00	440.
5 MOUE CART WITH SHEETMETAL2 FROM LAPOUT TO HANDROLLER AT WORKBENCH	A1 80 G1 A24 B3 P1 A0	1.00	300 .
TOTAL TMU			1900.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

29340

File Description ? BEND RADIUS ON FLAT OVAL TO RADIUS CORNERS

Output to line-Printer <Y or N> ? N

(39, 1)

FIT ,Wll

F02RC ,M35

BEND 'RADIUS ON FLAT OVAL TO RADIUS CORNERS WITH LEAFBRAKE AT
SHEETMETAL SHOP

PER FLAT OVAL TO RADIUS CORNERS

OFG: 4 01-JUL-83

NASSCO SHEETMETAL SHAPE 10

* 18 GAUGE GLAV. SHEETMETAL

* 20X12TO16X12 FLAT OVAL TO RADIUS CORNERS

FITTER BEGINS AT WORKTABLE

1	MOVE VISEGRIPS FROM WORKTABLE TO LEAFBRAKE		
	A1 BO G1 A81 BO P1 A0	1.00	840.
2	GRIP ADJUSTMENT ROD ON LEAFBRAKE AT LEAFBRAKE USING VISEGRIPS AT LEAFBRAKE AND ASIDE		
	A1 BO G1 A1 BO P3 C1 A1 RO P1 A0	1.00	90.
3	POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFBRAKE WITH 4 STEPS F 2		
	A1 BO G1 A6 BO P6 A0	2.00	280.
4	OPERATE LEAFBRAKE-LEVER PROCESS F 2		
	A1 BO G1 M6 X16 IO A0	2.00	480.
5	POSITION SHEETMETAL 2 FROM LEAFBRAKE TO LEAFBRAKE F 74		
	A1 BO G1 A1 BO P6 A0	74.00	6660.
6	OPERATE LEAFBRAKE-LEVER PROCESS F 74		
	A1 BO G1 M6 X16 IO A0	74.00	17760.
7	REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE WITH 4 STEPS F 2		
	A1 BO G1 A6 BO P3 A0	2.00	220.
8	MOVE CART WITH SHEETMETAL AND VISEGRIPS FROM LEAFBRAKE TO WORKTABLE		
	A1 BO G1 A81 B3 P1 A0	1.00	870.
		TOTAL TMU	27200.

Type D,EM,CT,EW,EX,L,LD,LS,H,T,W <or H for help> ?:

60,730

File Description ? ASSEMBLE FLAT OVAL TO RADIUS CORNERS

Output to line-Printer <Y or N) ? N

(39,1)

FIT .Wll FO2RC .M36
ASSEMBLE SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH
RIVET GUN AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 01-JUL-83
NASSCO SHEETMETAL SHAPE 10
* 18 GAUGE GALV. SHEETMETAL
* 20X12T016X12 FLAT OVAL TO
* RADIUS CORNERS 30'L
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
3	GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE F 2		
	A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0	2.00	180.
4	FASTEN 5-32DRILLBIT FROM WORKTABLE TO DRILLMOTOR WITH 3 WRIST-TURNS USING CHUCKKEY AND ASIDE		
	A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0	1.00	140.
5	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2		
	A1 B0 G1 A1 B0 P6 A0	2.00	180.
6	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2		
	A1 B0 G1 M6 X6 IO A0	2.00	230.
7	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2		
	A1 B0 G1 A1 B0 P6 A0	2.00	180.
8	OPERATE RIVETGUN AT WORKTABLE PROCESS F 2		
	A1 B0 G1 M6 X3 IO A0	2.00	220.
	TOTAL TMU		1680.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help) ?-

62,410

File Description ? TACK WELD FLAT OVAL TO RADIUS CORNERS

output to line-printer <Y or N> ? N

(3 9 , 1)

FIT .W11

F02RC .M37

TACK WELD SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH
TACK WELDER AT SHEETMETAL SHOP

PER FLAT OVAL TO RADIUS CORNERS

OFG: 4 01-JUL-83

NASSCO SHEETMETAL SHAPE 10

* 18 GAUGE GALV. SHEETMETAL

* 20'X12' TO 16.X12' TO

* RADIUS CORNERS 30'L

* HOLD. CORNERS AND FLAT OVAL COLLAR TO--

* ASSEMBLY WITH VISEGRIPS

* WELD ON F02RC.M38 AT WELD AREA

FITTER BEGINS AT WORKTABLE

1	MOVE CCLAMPS , SHEETMETAL FROM WORKTABLE TO WELDOUT		
	A1 BO G1 A54 B3 P1 A0	1.00	600.
2	POSITION SHEETMETAL FROM TABLE AT WELDOUT TO		
	SHEETMETAL AT WELDOUT WITH 3 STEPS		
	A1 BO G1 A6 BO P6 A0	1.00	140.
3	GRIP SHEETMETAL TO SHEETMETAL2 AT WELDOUT USING		
	CCLAMPS AT WELDOUT AND ASIDE PF 20 (4 5 6 7)		
	A1 B0 G1 (A1 BO P3 C1) A1 BO P1 A0 (20)	1.00	1040.
4	OPERATE TACKWELDER AT WELDOUT PROCESS F 28		
	A1 BO G1 M6 X3 IO A0	28.00	3080.
5	MOVE CCLAMPS, SHEETMETAL FROM WELDOUT TO WORKTABLE		
	A1 BO G1 A54 B3 P1 A0	1.00	600.
		TOTAL TMU	5460.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?'

67870

[illegible]

File Description ? RIVET FLAT OVAL TO RADIUS CORNERS

output to line-printer <Y or N> ? N

(39,1)
 FIT .wll FO2RC .M39
 RIVET FLAT OVAL TO RADIUS CORNERS WITH RIVET GUN AT SHEETMETAL
 SHOP
 PER FLAT OVAL TO RADIUS CORNERS OFG: 4 01-JUL-83
 NASSCO SHEETMETAL SHAPE 10
 * 18 GAUGE GALV. SHEETMETAL
 * 20.X12' TO RADIUS CORNERS 30'L
 FITTER BEGINS AT WORKTABLE

1	POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2		
	A1 BO G1 A3 BO P6 A0	2.00	220.
2	MARK RIVET HOLES FROM RIVET-HOLE-GUIDE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 1 4 (4 5 6 7)		
	A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (14)	1.00	740.
3	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 14		
	A1 BO G1 A6 BO P6 A0	14.00	1960.
4	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 14		
	A1 BO G1 M6 X6 IO A0	14.00	1960.
5	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 14		
	A1 BO . G1 A1 BO P6 A0	14.00	1260.
6	OPERATE RIVETGUN AT WORKTABLE PROCESS F 14		
	A1 BO G1 M6 X3 IO A0	14.00	1540.
7	GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)		
	A1 BO G1 (A1 BO P3 C1) A1 BO P1 A0 (8)	1.00	440.
8	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS		
	A0 BO GO A0 BO PO T10 A0 BO PO A0	1.00	100.
		TOTAL TMU	8220,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?.

SHEET METAL SHAPE # 10

25" x 15" to 20" x 14" FLAT OVAL to RADIUS CORNERS

<u>FAB</u>	<u>54280</u>	<u>32 MIN.</u>
<u>MARK OUT</u>	<u>25410</u>	<u>15 MIN.</u>
<u>WELD</u>	<u>84150</u>	<u>50 MIN.</u>
<u>TOTAL TMU</u>	<u>1.63840</u>	<u>98 MIN.</u>

Output to line-printer <Y or N> ? N

NO	DESCRIPTION	TIME	AMOUNT
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2		
	Al BO Gl Al BO P6 A0	2.00	180.
2	POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 6		
	Al BO Gl A6 BO P6 A0	6.00	840.
3	MARK OUTLINE ON SHEETMETAL FROM TEMPLATE AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)		
	Al BO Gl (Al BO Pl R3) Al BO Pl A0 (6)	1.00	340.
4	POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F 48		
	Al BO Gl Al BO P6 A0	48.00	4320.
5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 48 (4 5 6 7)		
	Al BO Gl (Al BO PO F3) Al BO Pl A0 (48)	1.00	1960.
6	REPLACE WEIGHTS FROM TEMPLATE TO WORKTABLE WITH 3 STEPS F 4		
	Al BO Gl A6 BO P3 A0	4.00	440.
7	REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE F 2		
	Al BO Gl Al DO P3 A0	2.00	120.
8	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 10 (4 5 6 7)		
	Al BO Gl (Al BO Pl R16) Al BO Pl A0 (10)	1.00	1840.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 86 (4 5 6 7)		
	Al BO Gl (Al BO Pl R3) Al BO Pl A0 (36)	1.00	4340.
10	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)		
	Al BO Gl (Al BO Pl R3) Al BO Pl A0 (52)	1.00	2640.
11	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)		
	Al PO Gl (Al BO Pl M32) Al BO Pl A0 (31)	1.00	1060.
12	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)		
	Al BO Gl (Al BO Pl R3) Al BO Pl A0 (6)	1.00	340.
13	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 5		
	Al BO Gl Al BO P6 A0	5.00	450.

File Description ? SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS

output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

F02RC M51

SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH

14 FT. SHEAR AT SHEETMETAL SHOP

PER FLAT OVAL TO RADIUS CORNERS

OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 10

* 11 GAUGE GALV. SHEETMETAL

* 25'X15' TO 20.X14' RADIUS CORNERS

* 35'L WITH 4' RADIUS CORNERS

* SHEAR 1 1/2' STRIPS FOR RADIUS CORNERS

FITTER BEGINS-AT 14FT,SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO
14FT.SHEAR WITH 4 STEPS F 2

A1	BO	G1	A6	BO	P6	A0	2.00	280.
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2 PUSH 14FT,SHEAR-FOOTPEDAL PROCESS F 2

A1	BO	G1	M1	X3	IO	A0	2.00	120.
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3 POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR F 15

A1	BO	G1	A1	BO	P6	A0	15.00	1350.
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4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 15

A1	BO	G1	M1	X3	IO	A0	15.00	900.
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5 REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT
14FT.SHEAR WITH 10 STEPS F 2

A1	HO	G1	A16	BO	P3	A0	2.00	420.
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6 MOVE CART WITH SHEETMETAL FROM 14FT.SHEAR TO WORKTABLE

A1	B0	G1	A81	B3	P1	A0	1.00	870.
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TOTAL TMU 3940.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT RADIUS ON CORNERS FOR F.O. TO R.C.

Output to line-Printer <Y or N> ? N

(39, 1)
FIT .W11 F02RC M52
CUT RADIUS ON CORNERS FOR FLAT OVAL TO RADIUS CORNERS WITH
SABER SAW AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 17-MAY-83
NASSCO SHEETMETAL SHAPE 10
* 11 GAUGE GALV, SHEETMETAL
* 25'X1S' TO 20'X14' RADIUS CORNERS
* 35'L WITH 4' RADIUS CORNERS
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 BO G1 A6 BO P3 A0	2.00	220.
2	MOVE SABER-SAW2 FROM TOOLROOM TO WORKTABLE		
	A96 BO G1 A96 B3 F1 A0	1.00	1970.
3	FASTEN NUT [SAW BLADE] TO SABER-SAW AT WORKTABLE 4 WRIST-TURNS USING ALLEN-WRENCH AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)		
	A1 BO G1 (A1 BO P3 F10) A1 BO P1 A0 (2)	1.00	320.
4	OPERATE SABER-SAW FROCESS F 8		
	A1 BO G1 M6 X67 IO A0	8.00	6000.
5	FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)		
	A1 BO G1 (A1 B0 PO F6) A1 BO P1 A0 (12)	1.00	880.
6	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
	A1 BO G1 A6 BO P3 A0	1.00	110.
7	MOVE CART WITH SHEETMETAL FROM WORKTABLE TO 14FTHYDROPRESSBRAKE		
	A1 BO G1 A96 BO P1 A0	1.00	990.
		TOTAL TMU	,0490.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

14430

File Description ? BEND RADIUS FOR FLAT OVAL TO RADIUS CORNERS

; OUTPUT to line-Printer <Y or N> ? N

(39, 1)
FIT .Wll F02RC .M53
BEND RADIUS FOR FLAT OVAL TO RADIUS CORNERS WITH
14 FT, HYUROPRESS-BRAKE AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 17-MAY-83
NASSCO SHEETMETAL SHAPE 10'
* 11 GAUGE GALV. SHEETMETAL
* 25'X15' TO 20'X14' RADIUS CORNERS
* 35'L WITH 4' RADIUS CORNERS
FITTER BEGINS AT 14FTHYDROPPRESSBRAKE

1	POSITION SHEETMETAL FROM CART AT 14FTHYDROPPRESSBRAKE TO 14FTHYDROPPRESSBRAKE WITH 4 STEPS F 2		
	A1 BO G1 A6 BO P6 A0	2.00	230.
2	PUSH 14FTHYUROPRESSBRAKE-FOOTPEDAL PROCESS F 2		
	A1 BO G1 M1 X24 IO A0	2.00	540.
3	POSITION SHEETMETAL FROM 14FTHYDROPPRESSBRAKE TO 14FTHYDROPPRESSBRAKE F 64		
	A1 BO G1 A1 BO P6 A0	64.00	5760.
4	PUSH 14FTHYDROPPRESSBRAKE-FOOTPEDAL PROCESS F 64		
	A1 BO G1 M1 X24 IO AO-	64600	17280.
5	REPLACE SHEETMETAL FROM 14FTHYDROPPRESSBRAKE TO CART AT 14FTHYDROPPRESSBRAKE WITH 4 STEP'S F 2		
	A1 BO G1 A6 BO P3 A0	2.00	220.
6	MOVE CART WITH SHEETMETAL FROM 14FTHYDROFRESSBRAKE TO ROLLER		
	A1 BO G1 A54 BO P1 A0	1.00	570.
		TOTAL TMU	24650.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

39,080

File Description ? FORM RADIUS ON COLLAR CORNERS FOR F.0. TO R.C.

Output to line-printer <Y or N> ? N

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i
(39, 1)
FIT .W11 F02RC .M54
FORM RADIUS ON COLLAR CORNERS FOR FLAT OVAL TO RADIUS CORNERS
WITH ROLLER [ROLL FORMER] AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 17-MAY-83
NASSCO SHEETMETAL SHAPE 10
* 11 GAUGE GALV, SHEETMETAL
* 25.'X15' TO 20'X14' RADIUS CORNERS
* 35'L WITH 4' RADIUS CORNERS
* NEXT OPERATION IN WELD AREA
* SEE F02RC.M55
FITTER BEGINS AT ROLLER

1	PLACE SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS	A1 BO G1 A6 BO P3 A0	1.00	110.
2	FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3 WRIST-TURNS USING HAND F 2	A1 BO G1 A1 BO P1 F6 A0 BO PO A0	2.00	200.
3	PUSH ROLLER-BUTTON PROCESS F 8	A1 BO G1 M1 X96 IO A0	8.00	7920.
4	PLACE SHEETMETAL FROM ROLLER TO SHEETMETAL AT ROLLER WITH 2 STEP'S F 8	A1 B0 G1 A3 B3 P3 A0	8.00	880.
5	REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH 2 STEPS F 9	A54 BO G1 A3 BO P3 A0	9.00	5490.
6	MOVE CART WITH SHEETMETAL FROM ROLLER TO WORKTABLE	A1 BO G1 A54 B3 P1 A0	1.00	600.
			TOTAL TMU	15200.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

. 54,280

Please input file <F02RC.M55> ?

File Description ? WELD FLAT OVAL TO RADIUS CORNERS

OutPut to line-printer <Y or N> ? N

(39,101)

WELD .W01

F02RC .M55

WELD FLAT OVAL TO RADIUS CORNERS WITH ARC (STICK) WELDER AT
SHEETMETAL SHOP WELDING BOOTH

PER FLAT OVAL TO RADIUS CORNERS

OFG: 4 21-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 10

* 11 GAUGE GALV, SHEETMETAL

* 25'X15' TO 20'X14' RADIUS CORNERS 35'L

* --WITH 4' RADIUS CORNERS

* WELDING DONE IN WELD BOOTH AREA

* WELDOR PERFORMS THE WORK

* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 BO G1 A6 BO P3 A0	2.00	220.
2	FITTER MOVE CART FROM- WORKTABLE TO WELDTABLE		
	A1 BO G1 A131B3 PI A0	1.00	1370 .
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2		
	A1 BO G1 A6 BO P3 A0	2.00	220.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 BO G1 M1 X0 IO A32	1.00	370 .
5	WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 BO G1 M3 X0 IO A1	1.00	60.
6	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F B		
	A3 B3 G1 A1 BO P6 A0	3.00	1120.
7	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 3		
	A1 BO G1 M1 X10 IO A0	3.00	1040.
8	WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1 WRIST-TURN USING HAND F 42		
	A1 BO G1 A1 BO P1 F3 A0 PO PO A0 3/	42.00	2940.
9	FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 42		
	A1 BO G1 M1 X0 IO A1	42.00	1262
10	WELDOR POSITION STINGER1 FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTAELE F 42		
	A1 BO G1 A1 BO P6 A0	42.00	1680. 2
11	WELDOR OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F 32 24		
	A1 BO G1 M6 X17310 A0	42.00	532
12	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 42		
	A1	42.00	2545
13	WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND ASIDE PF 15 (4 5 6 7)		
	A1 BO G1 (A1 BO PO L16)A1 BO PI A0 (15)	32.00	57920.
			15490
			1680.
			1262
			532
			2590.

SHEET METAL SHAPE # 11

8" x 5" to 5" x 5" x 6" LG SQUARE to FLAT OVAL

<u>FAB</u>	<u>55,980</u>	<u>33 MIN.</u>
<u>MARK out</u>	<u>35,220</u>	<u>21 MIN.</u>
<u>WELD</u>	<u>11,070</u>	<u>7 MIN</u>
<u>TOTAL</u>	<u>102,270</u>	<u>61 MIN.</u>

Please input file <FLOVAL.MO1> ?

File Description ? MARK out FLAT OVAL

Output to line-printer <Y or N> ? N

(3 9 , 3)

FIT .WO8 FLOVAL.Mo1)
 MARK OUT SHEETMETAL FOR FLAT OVAL WITH-AWL AT SHEETMETAL SHOP
 PER FLAT OVAL --OFG 4 -24-MAR-83.

NASSCO SHEETMETAL SHAP #11
 * HULL 418
 * DRAWING 501-292
 * V2-92008
 * V6-1951
 * 22 'GAUGE GALV, SHEETMETAL
 * 8'X5' TO 5'X5' FLAT OVAL X6'L SQ 2 F.O.
 * USE TEMPLATE TO MARK OUT 2 HALVES
 FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS	A1 BO G1 A6 BO P6 AO	1.00	140.
2	PLACE 2 WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE. WITH 4 STEPS F 2	A1 BO G1 A6 BO P3 AO	2.00	220.
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 9 (4 5 6 7)	A1 BO G1 (A1 BO P1 R16) A1 BO P1 AO (9)	1.00	1660.
4	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 40	A1 BO G1 A1 BO P6 AO	40.00	3600.
5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 40 (4 5 6 7)	. A1 BO G1 (A1 BO PO F3) A1 BO P1 AO (40)	1.00	1640.
6	REPLACE 2 WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS'	A1 PO G1 A6 BO P3 AO	1.00	110.
7	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS	A1 BO G1 A6 BO P3 AO	1.00	110.
3	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 18 (4 5 6 7)	A1 PO G1 (A1 BO P1 R16) A1 BO P1 AO (18)	1.00	3280.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE.5 DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 50 (4 5 6 7) F 2	A1 BO G1 (A1 BO P1 R16)A1 BO P1 AO (50)	2.00	18080.
10	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6,7)	A1 BO G1 (A1 BO P1 R3) A1 BO P1 AO (52)	1.00	2640.
11	MEASURE SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4(4 5 6 7)	A1 BO G1 (A1 BO P1 M32) A1 BO P1 AO (4)	1.00	1400.
12	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT			

	USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)		
	A1 BO G1 (A1 BO P1 R3)A1 BO P1 A0 (4)	1.00	240.
13	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 3		
	A1 BO G1 A1 BO P6 A0	3.00	270.
14	MARK LINE FROM STRAIGHTEDGE AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE		
	A1 BO G1 A1 BO P1 R3 A1 BO P1 A0	1.00	90.
15	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)		
	A1 BO G1 (A1 BO P1 R3) A1 BO P1 A0 (5)	1.00	290.
16	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)		
	A1 BO G1 (A1 BO P1 R3)_ A1 BO P1 A0 (12)	1.00	640.
17	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
	A1 BO G1 A6 BO P3 A0	1.00	110.
18	MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR		
	A1 BO G1 A67 BO P1 A0	1.00	700.

TOTAL TMU **35220.**

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <0r H for help> ?

Please inPut file <FLOVAL.M02> ?

File Description ? SHEAR SHEETMETAL FOR FLAT OVAL

Output to line-printer <Y or N> ? N

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(39, 3)
FIT .W08 FLOVAL.M02
SHEAR SHEETMETAL FOR FLAT OVAL WITH SMALL SHEAR AT SHEETMETAL
SHOP
PER FLAT OVAL OFG: 4 24-MAR-83
NASSCO SHEETMETAL SHAPE #11
* HULL 418
* DRAWING 501-292
* V2-92008
* U6-1951
* 22 GAUGE GALV. SHEETMETAL
* 8'X5' TO S'XS' F.O. X6'L SQ. TO F.O.
* SHEAR 2 HALVES AND COLLAR
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL 2 FROM CART AT SMALLSHEAR TO
  SMALLSHEAR
      A1 BO G1 A1 BO P6 A0 1.00 90.
2 OPERATE FOOTPEDAL AT SMALLSHEAR PROCESS
      A1 BO G1 M6 X6 IO A0 1.00 140.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 10
      A1 BO G1 A1 BO P6 A0 10.00 900.
4 OPERATE FOOTPEDAL AT SMALLSHEAR PROCESS F 10
      A1 BO G1 M6 X6 IO A0 10.00 1400.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
  SMALLSHEAR WITH 4 STEPS
      A1 BO G1 A6 BO P3 A0 1.00 110.
6 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
      A1 BO G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 3370.
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Type D,EM,CT,EW,EX,L,LD,LS,M,TW <or H for help> ?

T

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help) ?

Please input file <FLOVAL,MO

> ? T

File Description ? SHEAR RADIUS FOR FLAT OVAL

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W08

FLOVAL.M03

.SHEAR SHEETMETAL FOR FLAT OVAL WITH UNI-SHEAR AT SHEETMETAL SHOP

PER FLAT OVAL

OFG: 4 25-MAR-83

NASSCO SHEETMETAL SHAPE #11

* HULL 418

* DRAWING 501-292

* V2-92008

* U6-1951

* 22 GAUGE GALV, SHEETMETAL

* 8'X5' TO 5'X5' F.O. X 6'L SQ. TO F.O.

* SHEAR RADIUS CORNERS ON 2 HALVES

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS

A1 BO G1 A6 BO P3 A0 1.00 110.

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE

A96 BO G1 A96 B3 P1 A0 1.00 1970.

3 OPERATE UNISHEAR PROCESS F 8

A1 BO G1 M6 X17310 A0 8.00 14480.

4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING

SNIPS AT WORKTABLE AND ASIDE PF 20 (4 5 6 7)

A1 BO G1 (A1 BO P3 C3) A1 BO P1 A0 (20) 1.00 1440.

5 FASTEN (FLATTEN)_ CORNERS ON SHEETMETAL AT WORKTABLE 3

STRIKES USING HAMMER AND ASIDE PF 12 (4 5 6 7)

A1 BO G1 (A1 BO PO F6) A1 BO P1 A0 (12) 1.00 880.

6 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS

A1 BO G1 A6 BO P3 A0 1.00 110.

7 MOVE CART FROM WORKTABLE TO WORKBENCH

A1 BO G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 19720.

23090

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? T

please input file <FLOVAL.M04> ?

File Description ? FORM COLLAR FOR FLAT OVAL

Output to line-Printer <Y or N> ? N

(39, 3)

FIT .W08

FLOVAL.M04

FORM SHEETMETAL FOR FLAT OVAL COLLAR WITH HAND OPERATED ROLLER AT
SHEETMETAL SHOP

PER FLAT OVAL

OFG: 4 25-MAR-83

NASSCO SHEETMETAL SHAPE #11

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1951

* 22 GAUGE GALV. SHEETMETAL

* 8'X5' TO 5'X5'X6'L SQ TO F,O,

* ROLL UP FLAT OVAL RADIUS CORNERS

* HAND OPERATED ROLLER (HAND-ROLLER)

FITTER BEGINS AT WORKBENCH

1 PLACE SHEETMETAL FROM CART AT WORKBENCH TO WORKBENCH
WITH 3 STEPS

A1 BO G1 A6 BO P3 A0 1.00 110.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL WITH HAND-ROLLER AT
WORKBENCH 5 SPINS USING FINGERS F 4

A1 BO G1 A1 BO P1 F10 A0 BO PO A0 4.00 560.

3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 4

A1 BO G1 M6 X0 IO A0 4.00 320.

4 LOOSEN BOLT [TOLLS] TO SHEETMETAL WITH HAND-ROLLER AT
WORKBENCH 5 SPINS USING FINGERS F 4

A1 BO G1 A1 BO P1 L10 A0 BO PO A0 4.00 560.

5 REPLACE SHEETMETAL FROM WORKBENCH TO CART AT WORKBENCH
WITH 4 STEPS

A1 BO G1 A6 BO P3 A0 1.00 110.

6 MOVE CART FROM WORKBENCH TO LEAFBRAKE

A1 BO G1 A10 BO P1 A0 1.00 130.

TOTAL TMU 1790.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

24,880

T

Please input file <FLOVAL 05> ?

file Description ? BEND RADIUS FOR FLAT OVAL

Output to line-Printer <Y or N> ? N

(39, 3)

FIT .W08

FLOVAL.M05

BEND SHEETMETAL FOR FLAT OVAL RADIUS WITH LEAF BRAKE AT
SHEETMETAL SHOP

PER FLAT OVAL

OFG: 4 25-MAR-83

NASSCO SHEETMETAL SHAPE #11

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1951

* 22 GAUGE GLAV. SHEETMETAL

* 8'X8' TO 5'DIA. X9'L XSQ. TO FLAT OVAL

* BEND RADIUS ON 2 PIECES FOR FLAT OVAL

FITTER BEGINS AT LEAFBRAKE

1 PLACE SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFBRAKE
WITH 4 STEPS F 2

A1 BO G1 A6 BO P3 A0 2.00 220.

2 GRIP LEAFBRAKE ADJUSTMENT ROD TO LEAFBRAKE USING
VISEGRIPS AND ASIDE

A81 B3 G1 A81 BO P3 C1 A1 BO P1 A0 1.00 1720.

3 OPERATE LEAFBRAKE-LEVER PROCESS F 80

A1 BO G1 M6 X16 IO A0 80.00 19200.

4 REPLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LEAFBRAKE
WITH 4 STEPS F 2

A1 BO G1 A6 BO P3 A0 2.00 220.

5 MOVE CART FROM LEAFBRAKE TO WORKTABLE

A1 BO G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 22230.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

47/10

Please input file <FLOVAL.M06> ?

File Description ? ASSEMBLE FLAT OVAL

Output to line-printer <Y or N> ? N

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(39, 3)
FIT .W08. FLOVAL.M06
ASSEMBLY SHEETMETAL FOR FLAT OVAL WITH RIVET GUN AT SHEETMETAL
SHOP
PER FLAT OVAL OFG: 4 25-MAR-83
NASSCO SHEETMETAL SHAPE #11
* HULL 418
* DRAWING 501-292
* V2-92008
* V6-1951
* 22 GAUGE GALV. SHEETMETAL
* 8'X5'TO 5'X5' F.0. X6'L SQ. TO F.0.
* RIVET 2 HALVES OF SQ TO F.0. TOGETHER
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS
      A1 B0 G1 A6 B0 P3 A0 1.00 110.
2 FASTEN 5.32DRILL-BIT FROM WORKTABLE TO DRILLMOTOR AT
  WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AND ASIDE
      A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.
3 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 3 STEPS
      A1 R0 G1 A6 B0 P6 A0 1.00 140.
4 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING
  VISEGRIPS AND ASIDE PF 2 (4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 C1) A1 B0 P1 A0 (2) 1.00 140.
5 OPERATE DRILLMOTOR PROCESS F 2
      A1 B0 G1 H6 X6 IO A0 2.00 280.
6 POSITION RIVETS FROM. WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 2
      A1 B0 G1 A1 B0 P6 A0 2.00 180.
7 OPERATE RIVETGUN PROCESS F 2
      A1 B0 G1 M6 X3 IO A0 2.00 220.

TOTAL TMU 1210.

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Type D,EM,CT,EW,EX,L,LD,lS,M,T,W <or H for help> ?

48320

Type D,EM,CT,EW,EX,LD,LS,M,T,W <or H for help> ? T

please input file <FLOVAL.M07> ?

File Description ? TACK COLLAR TO FLAT OVAL

Output to line-Printer <Y or N> ? N

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(39, 3)
FIT .W08                                FLOVAL.M07
TACK SHEETMETAL FOR FLAT OVAL WITH TACK WELDER AT SHEETMETAL SHOP
PER FLAT OVAL                          OFG: 4 25-MAR-83
NASSCO SHEETMETAL SHAPE #11
* HULL 418
* DRAWING 501-292-
* V2-92008
* V6-1951
* 22 GAUGE GALV. SHEETMETAL
* 8'X5' TO 5'X5'.F.0. X6'L SQ, TO F.0.
* USE TEMPLATE TO HARK OUT 2 HALVES
* NEXT MOST ANALYSIS FOR WELDING F.0.
* SEE MWELD PROGRAM FOR FLOVAL.M08 .
FITTER BEGINS AT WORKTABLE

1 MOVE VISEGRIPS , SHEETMETAL2, FROM WORKTABLE TO
  WELDOUT
      'A1 B0 G1 A54 B3 P1 A0          1.00      600.
2 POSITION SHEETMETAL FROM WELDOUT TABLE TO SHEETMETAL
  AT WELDOUT TABLE WITH 3 STEPS
      A1 B0 G1 A6 B0 P6 A0          1.00      140.
3 GRIP SHEETMETAL TO SHEETMETAL2 AT WELDOUT USING
  VISEGRIPS AND ASIDE PF 6 ( 4 5 6 7 )-
      A1 B0 G1 (A1 B0 P3 C1) A1 B0 P1 A0 (6) 1.00      340.
4 OPERATE TACKWELDER PROCESS F 16
      A1 B0 G1 M6 X3 IO A0          16.00     1760.
5 MOVE VISEGRIPS, SHEETMETAL FROM WELDOUT TO WORKTABLE
      A1 B0 G1 A54 B3 P1 A0          1.00      600.

TOTAL TMU                                3440.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

51,760

File Description ? WELD SQUARE TO FLAT OVAL

Output to line-printer <Y or N> ? N

(39, 3)

WELD • W01

SQ2FO .MO8

WELD SQUARE TO FLAT OVAL WITH TIG-WELDER AT SHEETMETAL SHOP

WELDING BOOTH

PER SQUARE TO FLAT OVAL

OFG: 4 21-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 11

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1951

* 22 GAUGE GALV. SHEETMETAL

* 8X5 TO 5X5 SQUARE TO FLAT OVAL

* WELDING DONE IN WELD AREA BOOTH

* GAS TUNGSTEN ARC WELDING

* WELDOR PERFORMS WORK

* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
	A1 BO G1 A6 BO P3 A0	1.00	110.
2	FITTER HOVE CART FROM WORKTABLE TO WELDTABLE		
	A1 BO G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS		
	A1 BO G1 A6 BO P3 A0	1.00	110.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 BO G1 H1 X0 IO A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 BO G1 M1 X0 IO A1	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND		
	A1 BO G1 A1 BO P1 F3 A0 BO PO A0	1.00	70.
7	WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 HO G1 M3 x0 IO A1	1.00	60.
8	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMTAL ASSEMBLY AT WELDTABLE F 2		
	A3 B3 G1 A1 BO P6 A0	2.00	280.
9	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2		
	A1 BO G1 M1 X10 IO A0	2.00	260.
10	WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 3		
	A1 PO G1 A1 BO P6 A0	3.00	270.
11	PULL WELDHOD FROM UP AT WELDOR TO DOWN AT WELDOR F 3		
	A1 RO G1 M1- X0 IO A1	3.00	120.
12	WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 3		
	A1 BO G1 A1 B6 P6 A0	3.00	450.
13	OPERATE WELD STINGER-BUTTON1 PROCESS F 5		
	A1 BO G1 M6 X81 IO A0	5.00	4450.

Please input file <FLOVAL.M09> ?

File Description ? RIVET FLAT OVAL ASSEMBLY

Output to line printer <Y or N> ? N

(39, 3)

FIT .W08

FLOVAL.M09

RIVET SHEETMETAL FOR FLAT OVAL ASSEMBLY WITH RIVET GUN AT
SHEETMETAL SHOP

PER FLAT OVAL

OFB: 4 25-MAR-83

NASSCO SHEETMETAL SHAPE #11

* HULL 418

* DRAWING 301-292

* U2-92008

* U6-1951

* 22 GAUGE GALV. SHEETMETAL

* 8"X5" TO 5"X3" F.O. X 6"L SDO. TO F.O.

* SEAL SEAMS & RIVET HEADS WITH SEALANT

FITTER BEGINS AT WORKTABLE

1 POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL
AT WORKTABLE WITH 3 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 MARK RIVET HOLES ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (8) 1.00 440.

3 OPERATE DRILLMOTOR ON SHEETMETAL AT WORKTABLE PROCESS F
8

A1 B0 G1 M6 X6 I0 A0 8.00 1120.

4 POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 8

A1 B0 G1 A1 B0 P6 A0 8.00 720.

5 OPERATE RIVETGUN PROCESS F 8

A1 B0 G1 M6 X3 I0 A0 8.00 880.

6 POSITION CAULKINGGUN TO SHEETMETAL AT WORKTABLE PF 8 (4 5 6)

A1 B0 G1 (A1 B0 P6)A0 (8) 1.00 580.

7 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING
CAULKINGGUN AND ASIDE PF 4 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (4) 1.00 240.

8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 4220.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

SHEET METAL SHAPE # 11

15" X 15" to 12" X 10" X 25" LG SQUARE to FLAT SURF

<u>FAB</u>	<u>92,910</u>	<u>5.6 MIN.</u>
<u>MARK OUT</u>	<u>24,440</u>	<u>14 MIN</u>
<u>WELD</u>	<u>16,450</u>	<u>10 MIN.</u>
<u>TOTAL</u>	<u>133,800</u>	<u>30 MIN.</u>

Please input file (FLOVAL.M30> ?

File Description ? MARK OUT SHEETMETAL FOR FLAT OVAL

Output to line-printer <Y or N> ? N

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(39, 3)
FIT  ● Wll                                FLOVAL.M30
MARK OUT SHEETMETAL FOR FLAT OVAL WITH AWL AT SHEETMETAL SHOP
PER FLAT OVAL                                OFG: 4 14-APR-83
    NASSCO SHEETMETAL SHAPE 11
    * 18 GAUGE GALV. SHEETMETAL
    * 15'X15' TO 12'X10' FLAT OVAL 25' LG
    * MARK OUT FLAT OVAL WITH TEMPLATE
    FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 2 STEPS F 2
                                A1 B0 G1 A3 B0 P6 A0      2.00      220.
2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT
  WORKTABLE WITH 2 STEPS F 6
                                A1 B0 G1 A3 E0 P6 A0      6.00      660.
3 MARK OUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE
  5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 20 ( 4 5
  6 7 )
                                A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (20)  1.00      3 6 4 0 .
4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE
  WITH 1 STEP F 44
                                A1 B0 G1 A3 B0 P6 A0      44.00      4 8 4 0 .
5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
  HAMMER AT WORKTABLE AND ASIDE PF 44 ( 4 5 6 7 )
                                A1 B0 G1 (A1 B0 P0 F3) A1 B0 P1 A0 (44)  1.00      1800.
6 REPLACE WEIGHTS FROM SHEETMETAL AT WORKTABLE TO
  WORKTABLE WITH 2 STEPS F 6
                                A1 B0 G1 A3 B0 P3 A0      6.00      480.
7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO
  WORKTABLE WITH 2 STEPS F 2
                                A1 B0 G1 A3 B0 P3 A0      2.00      160.
8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
  USING REDPEN AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )
                                A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (20)  1.00      3640.
9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
  ASIDE PF 84 ( 4 5 6 7 )
                                A1 B0 G1 (A1 B0 P1 R3) A1 P0 P1 A0 (84)  1.00      4240.
10 MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT
  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTARLE AND
  ASIDE 52 ( 4 5 6 7 )
                                A1 B0 G1 A1 B0 P1 R3 A1 B0 P1 A0      1.00      90.
11 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
  STEEL-TAPE AT WORKTABLE AND ASIDE F 3
                                A1 B0 G1 A1 B0 P1 M32. A1 B0 P1 A0      3.00      1140.
12 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
                                A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (4)  1.00      240.
13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT

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FLOVAL. M30

WORKTABLE WITH 2 STEPS

	A1 B0 G1 A3 B0 P6 A0	1.00	110.
14	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (3)	1.00	580.
15	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (16)	1.00	840.
16	MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (16)	1.00	840.
17	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
18	MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR		
	A1 B0 G1 A67 B0 P1 A0	1.00	700.
TOTAL TMU			24440.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

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Please input file <FLOVAL.M31> ? {{

File Description ? SHEAR SHEETMETAL FOR FLAT OVAL

Output to line-Printer <Y or N> ? N

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( 39 3)
FIT .W11 FLOVAL.M31
SHEAR SHEETMETAL FOR FLAT OVAL WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP
PER FLAT OVAL OFG: 4 14-APR-83
NASSCO SHEETMETAL SHAPE 11
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' TO 12'X10' FLAT OVAL 25' L
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
  SMALLSHEAR WITH 4 STEPS F 2
      A1 B0 G1 A6 R0 P6 A0 2.00 280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
      A1 B0 G1 M1 X6 IO A0 2.00 180.
3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH
  3 STEPS F 14
      A1 B0 G1 A6 B0 P6 A0 14.00 1960.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 14
      A1 H0 G1 M1 X6 IO A0 14.00 1260.
5-REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT
  SMALLSHEAR WITH 18 STEPS F 2
      A1 B0 G1 A32 B0 P3. A0 2.00 740.
6 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE
      AL B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 5150.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

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Please input file <FLOVAL.M32> ?

File Description ? SHEAR RADIUS FOR FLAT OVAL

Output to line-printer <Y or N> ? N

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( 39, 3)
FIT .W11 FLOVAL,M32
SHEAR RADIUS FOR FLAT OVAL WITH UNI-SHEAR AT SHEETMETAL SHOP
PER FLAT OVAL OFG: 4 14-APR-83
NASSCO SHEETMETAL SHAPE 11
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' TO 12'X10' FLAT OVAL 25' L
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
      A96 B0 G1 A96 B3 P1 A0 1.00 1970.
3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 10
      A1 B0 G1 M6 X173I0 A0 10.00 18100.
4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
  SNIPS AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (20) 1.00 1440.
5 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3
  STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 20 ( 4
  5 6 7 )
      A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (20) 1.00 1440.
6 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
  WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0 2.00 220.
7 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT
      A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 23960.
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TrPe D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

29110

T

Please input file <FLOVAL.M33> ?

File Description ? FORM LAP ENDS FOR FLAT OVAL

Output to line-printer <Y or N> ? N

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( 3 9 , 3 )
FIT      .W11                      FLOVAL.M33
FORM LAP ENDS FOR FLAT OVAL WITH LAPOUT MACHINE AT SHEETMETAL
SHOP
PER FLAT OVAL                      OFG: 4 14-APR-83
    NASSCO SHEETMETAL SHAPE 11
    * 18 GAUGE GALV. SHEETMETAL
    * 15'X15' TO 12'X10' FLAT OVAL 25'L
    FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4
  STEPS F 2
      A1  B0  G1  A6  B0  P3  A0          2.00      220.
2 PUSH LAPOUT-SWITCH PROCESS F 2
      A1  B0  G1  M1  X16 IO A0          2.00      380.
3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 3 STEPS
  F 2
      A6  B0  G1  M1  X0  I3  A0          2.00      220.
4 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH
  4 STEPS F 2
      A1  B0  G1  A6  B0  P3  A0          2.00      220.
5 MOUE CART WITH SHEETMETAL2 FROM LAPOUT TO HAND-ROLLER
  AT WORKBENCH
      A1  B0  G1  A24 B3  P1  A0          1.00      300.

                                TOTAL TMU      1340.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

30450

T

Please input file <FLOVAL.M34> ?

File Description ? FORM RADIUS ON COLLAR FOR FLAT OVAL

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W11 FLOVAL.M34
FORM RADIUS ON COLLAR FOR FLAT OVAL WITH ROLL FORMER (ROLLER) AT
SHEETMETAL SHOP
PER FLAT OVAL OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 11
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' TO 12'X10' FLAT OVAL 25'L
FITTER BEGINS AT WORKBENCH

1	POSITION SHEETMETAL2 FROM CART AT WORKBENCH TO HAND-ROLLER AT WORKBENCH WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 F6 A0	2.00	280.
2	FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT HAND-ROLLER AT WORKBENCH 5 SPINS USING FINGERS F 6		
	A1 B0 G1 A1 B0 F1 F10 A0 B0 P0 A0	6.00	840.
3	CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 6		
	A1 B0 G1 M6 X0 I0 A0	6.00	480.
4	REPLACE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO CART AT WORKBENCH WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
5	MOVE CART WITH SHEETMETAL2 FROM WORKBENCH TO CORNICEBRAKE		
	A1 B0 G1 A32 B0 P1 A0	1.00	350.
		TOTAL TMU	2170.

Type D,EM,CT,EW,EX,L,LD,LS,H,T,W <or H for help> ?

32,620

N

(39, 3)

FIT .W11

FLOVAL.M35

BEND RADIUS FOR FLAT OVAL WITH CORNICE BRAKE AT SHEETMETAL SHOP

ER FLAT OVAL

OFG: 4 22-APR-83

NASSCO SHEETMETAL SHAPE 11

* HULL 414

* DRAWING 501-072

* V2-72003

* V6-3941

* 18 GAUGE GALV. SHEETMETAL

* 15'X15' TO 12'X10' FLAT OVAL 25'L

FITTER BEGINS AT CORNICEBRAKE

1	POSITION SHEETMETAL2 FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	OPERATE CORNICEBRAKE-LEVER PROCESS F 36		
	A1 B0 G1 M6 X42 IO A0	36.00	18000.
3	POSITION SHEETMETAL2 FROM CORNICEBRAKE TO CORNICEBRAKE F 2		
	A1 B0 G1 A1 B0 P6 A0	2.00	180.
4	OPERATE CORNICEBRAKE-LEVER PROCESS F 36		
	A1 B0 G1 M6 X42 IO A0	36.00	18000.
5	REPLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT CORNICEBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
6	MOVE CART WITH SHEETMETAL2 FROM CORNICEBRAKE TO WORKTABLE		
	A1 B0 G1 A54 B3 P1 A0	1.00	600.
		TOTAL TMU	37280,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

69,900

T

Please input file <FLOVAL.M36> ?

File Description ? ASSEMBLE FLAT OVAL

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W11 FLOVAL.M36
ASSEMBLE SHEETMETAL PARTS FOR FLAT OVAL WITH RIVET GUN AT
SHEETMETAL SHOP
PER FLAT OVAL OFG: 4 22-APR-83

NASSCO SHEETMETAL SHAPE 11
* HULL 414
* DRAWING 501-072
* V2-72003
* V6-3941
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' TO 12'X10' FLAT OVAL 25'L
* COMPLETE RIVETING AFTER WELDING COLLAR
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	POSITION SHEETMETAL2 FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS	A1 B0 G1 A3 B0 P6 A0	1.00	110.
3	GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AND ASIDE PF 2 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C1)A1 B0 F1 A0 (2)	1.00	140.
4	FASTEN 5.32DRILL-BIT TO DRILLMOTOR AT WORKTABLE WITH 3 WRIST-TURNS USING CHUCKKEY AND ASIDE	A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0	1.00	140.
5	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2	A1 B0 G1 M6 X6 IO A0	2.00	280.
6	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2	A1 B0 G1 A1 B0 P6 A0	2.00	180.
7	OPERATE RIVETGUN PROCESS F 2	A1 B0 G1 M6 X3 IO A0	2.00	...
TOTAL TMU				1290.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

7/190

75,310

File Description ? WELD FLAT OVAL

Output to line-printer <Y or N> ? N

(39, 3)

WELD .W01 FLOVAL.M38
WELD FLAT OVAL WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH
PER FLAT OVAL OFG: 4 21-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 11

* HULL 414
* DRAWING 501-072
* V2-7203
* V6-3941
* 18 GAUGE GALV. SHEETMETAL
* 15'X15' TO 12'X10' FLAT OVAL 25'LG
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORT SHEETMETAL ASSEMBLY
FITTER BEGINS AT WORKTABLE

1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.
2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE
A1 B0 G1 A131B3 P1 A0 1.00 1370.
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
WELDTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS
A3 B0 G1 M1 X0 I0 A32 1.00 370.
5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES
TO ON AT WELDMACHINES
A1 B0 G1 M1 X0 I0 A1 1.00 40.
6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1
WRIST-TURN USING HAND
A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 1.00 70.
7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES
A1 B0 G1 M3 X0 I0 A1 1.00 60.
8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE F 5
A3 B3 G1 A1 B0 P6 A0 5.00 700.
9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4
A1 B0 G1 M1 X10 I0 A0 4.00 520.
10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE F 4
A1 B0 G1 A1 B0 P6 A0 4.00 360.
11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 5
A1 B0 G1 M1 X0 I0 A1 5.00 200.
12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 5
A1 B0 G1 A1 B6 P6 A0 5.00 750,
13 OPERATE WELD STINGER-BUTTON1 PROCESS F 10
A1 B0 G1 M6 X81 I0 A0 10.00 8900,
14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 5
A1 B0 G1 M1 X0 I0 A1 5.00 200 .

31

Type D, EM, CT, EW, EX, L, LD, LS, T, W <or H for help> ?

T

Please input file <FLOVAL.M39> ?

File Description ? RIVET FLAT OVAL ASSEMBLY

Output to line-printer <Y or N> ? N

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( 39, 3)
FIT      • W11                      FLOVAL.M39
      RIVET SHEETMETAL FOR FLAT OVAL ASSEMBLY WITH RIVET GUN AT
SHEETMETAL SHOP
PER FLAT OVAL                      OFG: 4   25-APR-83
      NASSCO SHEETMETAL SHAPE 11
      * HULKL 414
      * DRAWING 501-072
      * V2-72003
      * V6-3941
      * 18 GAUGE GALV. SHEETMETAL
      * 15'X15 TO 12'X10' FLAT OVAL 25'L
      * SEAL SEAMS AND RIVETS WITH SEALANT
      FITTER BEGINS AT WORKTABLE

1 POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL
  AT WORKTABLE WITH 3 STEPS F 2
                        A1 B0 G1 A6 B0 P6 A0      2.00      280.
2 MARK RIVET HOLES ON SHEETMETAL FROM RIVET-HOLE-GUIDE AT
  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
  ASIDE PF 32 ( 4 5 6 7 )
                        A1 B0 G1 (R1 B0 P1 R3 )A1 B0 P1 A0 (32)  1.00      1640.
3 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 2 STEPS F 32
                        A1 B0 G1 A3 B0 P6 A0      32.00      3520.
4 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 32
                        A1 B0 G1 M6 X6 I0 A0      32.00      4480.
5 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 2 STEPS F 32
                        A1 B0 G1 A3 B0 P6 A0      32.00      3520.
6 OPERATE RIVETGUN AT WORKTABLE PROCESS F 32
                        A1 B0 G1 M6 X3 I0 A0      32.00      3520.
7 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING
  CAULKINGGUN AND ASIDE PF 10 ( 4 5 6 7 )
                        A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (10)  1.00      540.
8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
                        A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0      1.00      100.

                                           TOTAL TMU      17600,
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

92910

SHEET METAL SHAPE # 11

FAB	32,240	19 MIN.
MARK. out	21,650	12 MIN.
WELD	11,570	7 MIN.
TOTAL	65,460	39 MIN.

File Description ? MARK OUT FLAT OVAL TO SQUARE CORNER

Output to line-Printer <Y or N> ? N

(399 1)

FIT .W11

F02SQC.M50

MARK OUT FLAT OVAL TO SQUARE CORNER WITH AWL AT SHEETMETAL SHOP
PER FLAT OVAL OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 11

* 11 GAUGE GALV. SHEETMETAL

* 10'X5' SQUARE TO FLAT OVAL

FITTER BEGINS AT WORKTABLE

- 1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00 140.
- 2 PLACE WEIGHTS FROM WORKTABLE TO TEMPLATES AT WORKTABLE
WITH 4 STEPS F 6
A1 B0 G1 A6 B0 P3 A0 6.00 660.
- 3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7
)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6) 1.00 1120.
- 4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 2 STEPS F 32
A1 B0 G1 A3 B0 P6 A0 32.00 3520.
- 5 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING
HAMMER AT WORKTABLE AND ASIDE PF 32 (4 5 6 7)
A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (32) 1.00 1320.
- 6 REPLACE WEIGHTS FROM TEMPLATES AT WORKTABLE TO
WORKTABLE WITH 3 STEPS F 6
A1 B0 G1 A6 B0 P3 A0 6.00 660.
- 7 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 3 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
- 8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 18 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (18) 1.00 3280.
- 3 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 52 (4 5
6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52) 1.00 2640.
- 10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKFEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7
)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 GO (52) 1.00 2640.
- 11 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE F 4
A1 B0 G1 A1 B0 P1 M32 A1 B0 P1 A0 4.00 1520.
- 12 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (4) 1.00 240.
- 13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 3
A1 B0 G1 A1 B0 F6 A0 3.00 270.
- 14 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 3 (

4 5 6 7)

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR FLAT OVAL TO SQUARE CORNERS

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

F02SQC.M51

SHEAR SHEETMETAL FOR FLAT OVAL TO SQUARE CORNERS WITH 14FT.SHEAR
AT SHEETMETAL SHOP

PER FLAT OVAL

OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 11

* 11 GAUGE GALV. SHEETMETAL

* 10'X5' SQUARE TO FLAT OVAL

* SHEAR 1 1/2' STRIPS FOR RADIUS --

* -- COLLAR ON FLAT OVAL

FITTER BEGINS AT 14FT.SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO
14FT.SHEAR WITH 4 STEPS F 2

A1	B0	G1	A6	B0	P6	A0	2.00	280.
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2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 3

A1	B0	G1	M1	X3	I0	A0	2.00	120.
----	----	----	----	----	----	----	------	------

3 POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR WITH
4 STEPS F 13

A1	B0	G1	A6	B0	P6	A0	13.00	1820.
----	----	----	----	----	----	----	-------	-------

4 PUSH 14FT.SHEAR-FOOTFKDAL PROCESS F 13

A1	B0	G1	M1	X3	I0	A0	13.00	780.
----	----	----	----	----	----	----	-------	------

5 REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT
14FT.SHEAR WITH 4 STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

6 MOUE CART FROM 14FT.SHEAR TO WORKTABLE

A1	B0	G1	A81	B3	P1	A0	1.00	870.
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TOTAL TMU							4090.
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? CUT RADIUS FOR FLAT OVAL TO SQUARE CORNERS

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

F02SQC.M52

CUT RADIUS FOR FLAT OVAL TO SRUARE CORNERS WITH SABER-SAW AT
SHEETMETAL SHOP

PER FLAT OVAL

OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 11

* 1.1 GAUGE GALV. SHEETMETAL

* 10'X5' SQUARE TO FLAT OVAL

* CUT RADIUS & CORNERS WITH SABER SAW

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

2 MOVE SABER-SAW2 FROM TOOLROOM TO WORKTABLE

A96	B0	G1	A96	B3	P1	A0	1.00	1970.
-----	----	----	-----	----	----	----	------	-------

3 OPERATE SABER-SAW AT WORKTABLE PROCESS F 4

A1	B0	G1	M6	X67	I0	A0	4.00	3000.
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4 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

5 MOVE CART FROM WORKTABLE TO 14FTHYDROPRESSBRAKE

A1	B0	G1	A96	B0	P1	A0	1.00	990.
----	----	----	-----	----	----	----	------	------

TOTAL TMU							6400.
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Type D, EM, CT, EW, EX, L, LD, LS,M, T, W <or H for help> ?

10,490

File Description ? BEND RADIUS FOR FLAT OVAL TO SQUARE CORNERS

Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11

F02SQC.M53

BEND RADIUS FOR FLAT OVAL TO SQUARE CORNERS WITH
14FT. HYDRO-PRESS-BRAKE AT SHEETMETAL SHOP
PER FLAT OVAL

OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 11

* 11 GAUGE GALV. SHEETMETAL

* 100'X5' SQUARE TO FLAT OVAL

* BEND RADIUS FOR FLAT OVAL

FITTER BEGINS AT 14FTHYDROFRESSBRAKE

1	POSITION SHEETMETAL2 FROM CART AT 14FTHYDROFRESSBRAKE TO 14FTHYDROFRESSBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH 14FTHYDROFRESSBRAKE-FOOTPEDAL PROCESS F 2		
	A1 B0 G1 M1 X24 I0 A0	2.00	540.
3	POSITION SHEETMETAL FROM 14FTHYDROFRESSBRAKE TO 14FTHYDROFRESSBRAKE F 30		
	A1 B0 G1 A1 B0 P6 A0	30.00	2700.
4	PUSH 14FTHYDROFRESSBRAKE-FOOTPEDAL PROCESS F 30		
	A1 B0 G1 M1 X24 I0 A0	30.00	3100.
5	REPLACE SHEETMETAL FROM 14FTHYDROFRESSBRAKE TO CART AT 14FTHYDROFRESSBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
6	MOVE CART FROM 14FTHYDROFRESSBRAKE TO ROLLER		
	A1 B0 G1 A54 B0 P1 A0	1.00	570.
		TOTAL TMU	12410.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

22,900

File Description ? FORM COLLAR FOR FLAT OVAL TO SQUARE CORNERS

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

F02SQC.M54

FORM COLLAR FOR FLAT OVAL TO SQUARE CORNERS WITH
ROLLER (ROLL FORMER) AT SHEETMETAL SHOP
PER FLAT OVAL

OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 11

- * 11 GAUGE GALV. SHEETMETAL
- * 10'X5' FLAT OVAL TO SQUARE CORNERS
- * ROLL UP RADIUS COLLARS FOR FLAT OVAL
- * COMPLETE IN WELD BOOTH AREA
- * SEE MWELD....F02SQC.M55

FITTER BEGINS AT ROLLER

- 1 POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH
4 STEPS

A1	B0	G1	A6	B0	P6	A0	1 . 0 0	140.
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- 2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3
WRIST-TURNS USING HAND

A1	B0	G1	A1	B0	P1	F6	A0	B0	P0	A0	1.00	100.
----	----	----	----	----	----	----	----	----	----	----	------	------

- 3 PUSH ROLLER-BUTTON PROCESS F 3

A1	B0	G1	M1	X96	I0	A0	8.00	7920 .
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- 4 POSITION SHEETMETAL FROM ROLLER TO SHEETMETAL AT
ROLLER F 4

A1	B0	G1	A1	B0	P6	A0	4.00	360 .
----	----	----	----	----	----	----	------	-------

- 5 REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH
4 STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220 .
----	----	----	----	----	----	----	------	-------

- 6 MOVE CART FROM ROLLER TO WORKTABLE

A1	B0	G1	A54	B3	P1	A0	1.00	600.
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TOTAL TMU	9340.
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

32,240

File Description ? WELD SQUARE TO FLAT OVAL

Output to line-printer <Y or N> ? N

(39,101)

WELD .W01 F02SQC.M55
WELD SQUARE TO FLAT OVAL WITH ARC (STICK) WELDER AT SHEETMETAL
SHOP WELDING BOOTH
PER SQUARE TO FLAT OVAL OFG: 4 22-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 11

- * 11 GAUGE GALV. SHEETMETAL
- * 10X5 SQUARE TO FLAT OVAL 20'L
- * WELDING DONE IN WELD AREA BOOTH
- * WELDOR PERFORMS THE WORK
- * FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

- | | | | |
|----|---|-------|-------|
| 1 | FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART
AT WORKTABLE WITH 4 STEPS F 2 | | |
| | A1 B0 G1 A6 B0 P3 A0 | 2.00 | 220. |
| 2 | FITTER MOVE CART FROM WORKTABLE TO WELDTABLE | | |
| | A1 B0 G1 A131B3 P1 A0 | 1.00 | 1370. |
| 3 | PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO
WELDTABLE WITH 4 STEPS F 2 | | |
| | A1 B0 G1 A6 B0 P3 A0 | 2.00 | 220. |
| 4 | WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS | | |
| | A3 B0 G1 M1 X0 I0 A32 | 1.00 | 370. |
| 5 | WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT
WELDMACHINES TO AT WELDMACHINES | | |
| | A1 B0 G1 M3 X0 I0 A1 | 1.00 | 60. |
| 6 | WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE
TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4 | | |
| | A3 B3 G1 A1 B0 P6 A0 | 4.00 | 560. |
| 7 | WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4 | | |
| | A1 B0 G1 M1 X10 I0 A0 | 4.00 | 520. |
| 8 | WELDOR FASTEN WELDROD TO STINGER AT WELDTABLE 1
WRIST-TURN USING, HAND F 12 | | |
| | A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 | 12.00 | 340. |
| 9 | FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 12 | | |
| | A1 B0 G1 M1 X0 I0 A1 | 12.00 | 480. |
| 10 | WELDOR POSITION STINGER FROM WELDTABLE TO SHEETMETAL
ASSEMBLY AT WELDTABLE F 12 | | |
| | A1 B0 G1 A1 B0 P6 A0 | 12.00 | 1030. |
| 11 | OPERATE WELD STINGER-BUTTON2 AT WELDTABLE F 9 | | |
| | A1 B0 G1 M6 X0 I0 A0 | 9.00 | 720. |
| 12 | PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 12 | | |
| | A1 B0 G1 M1 X0 I0 A1 | 12.00 | 430. |
| 13 | WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT
WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND
ASIDE PF 5 (4 5 6 7) | | |
| | A1 B0 G1 (A1 B0 P0 L16)A1 B0 P1 A0 (5) | 1.00 | 890. |
| 14 | WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
1 8 (4 5 6 7) | | |
| | A1 B0 G1 (A1 B0 P1 C10)A1 B0 P1 A0 (18) | 1.00 | 2200. |
| 15 | REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART A1- | | |

SHEET METAL SHAPE # 12

8" X 8" X 20" LG. OGLE OFFSET OFFSE 5"

<u>FAB</u>	<u>51120</u>	<u>31 MIN.</u>
<u>MARK OUT</u>	<u>21660</u>	<u>13 MIN</u>
<u>TOTAL</u>	<u>72780</u>	<u>44 MIN.</u>

File Description ? MARK OUT CHEEKS FOR

OGEE

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

OGEE .M40

MARK OUT CHEEKS FOR OGEE WITH AWL AT SHEETMETAL SHOP

PER OGEE

OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 12

* 22 GAUGE GALV. SHEETMETAL

* 8'X8'X20'L OGEE / OFFSET 5'

* MARK OUT CHEEKS WITH TEMPLATE.

FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	POSITION WEIGHTS FROM WORKTABLE TO TEMPLATES AT WORKTABLE WITH 3 STEPS F 4	A1 B0 G1 A6 B0 P6 A0	4.00	560.
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6)	1.00	1120.
4	POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 2 STEPS F 8	A1 B0 G1 A3 B0 P6 A0	8.00	880.
5	FASTEN CFUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (8)	1.00	360.
6	REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 2 STEPS F 4	A1 B0 G1 A3 B0 P3 A0	4.00	320.
7	REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 2 STEPS F 2	A1 B0 G1 A3 B0 P3 A0	2.00	160.
8	MARK CUT LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6)	1.00	1120.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKFEN AT WORKTABLE AND ASIDE PF 44 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (44)	1.00	2240,
10	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	2640.
			TOTAL TMU	9680.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? MARK OUT WRAPPERS FOR OGEE

Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11

OGEE .M41

MARK OUT WRAPPERS FOR OGEE OFFSET WITH AWL AT SHEETMETAL SHOP
PER OGEE OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 12

* 22 GAUGE GALV. SHEETMETAL

* 8'X8'X20'L OGEE OFFSET 5'

* MARK OUT WRAPPERS WITHOUT TEMPLATES

FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7) A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (4)	1.00	1400.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (4)	1.00	240.
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4 A1 B0 G1 A1 B0 P6 A0	4.00	360.
4	MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4)	1.00	760.
5	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8 A1 B0 G1 A1 B0 P6 A0	8.00	720.
6	MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R6)A1 B0 P1 A0 (8)	1.60	680.
7	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 11 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (11)	1.90	2020.
8	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 44 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (44)	1.00	2240.
9	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	2640.
10	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2 A1 B0 G1 A6 B0 P3 A0	2.00	220.
11	MOUE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR A1 B0 G1 A67 B0 P1 A0	1.00	700.
TOTAL TMU			11980.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR OGEE

Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11 OGEE .M42

. SHEAR SHEETMETAL FOR OGEE OFFSET WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP

PER OGEE

OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 12

* 22 GAUGE GALV. SHEETMETAL

* 8'X8'X20" L OGEE OFFSET 5'

* SHEAR 1' SPACER STRIPS FOR PITTSBURGH--

* --LOCKS

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2

A1 B0 G1 M1 X6 IO A0 2.00 180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 14

A1 B0 G1 A1 B0 P6 A0 14.00 1.260.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2

A1 B0 G1 M1 X6 IO A0 2.00 180.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 10 STEPS F 2

A1 B0 G1 A16 B0 P3 A0 2.00 420.

6 MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE

A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 3050.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help_> ?

File Description ? SHEAR RADIUS ON CHEEKS FOR OGEE

Output to line-printer <Y or N> ? N

(39, 1)

FIT ,W11 OGEE .M43
SHEAR RADIUS ON CHEEKS FOR OGEE WITH UNI-SHEAR AT SHEETMETAL SHOP
PER OGEE OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 12

- * 22 GAUGE GALV. SHEETMETAL
- * 3'X8'X20" L OGEE / OFFSET 5'
- * BEND UP ONE CORNER ON CHEEK EDGE--
- * --WITH VISEGRIPS FOR EASY ENTRY IN--
- EDGE ROLLING MACHINE

FITTER BEGINS AT WORKTABLE

- 1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

- 2 MOUE UNISHEAR2 FROM TOOLROOM TO WORKTABLE

A96 B0 G1 A96 B3 P1 A0 1.00 1970.

- 3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 8

A1 B0 G1 M6 X17310 A0 8.00 14480;

- 4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
SNIPS AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 C3)A1 B0 P1 A0 (16) 1.00 1160.

- 5 FASTEN [FLATTEN] SHEETMETAL CORNERS ON SHEETMETAL AT
WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND
ASIDE PF 16 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (16) 1.00 1160,

- 6 GRIP AND TWIST SHEETMETAL [CHEEK CORNER EDGE] 1 TWIST
USING VISEGRIPS AT WORKTABLE AND ASIDE PF 4 (4 5 6 7

A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (4) 1.00 240.

- 7 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

- 8 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO LAPOUT

A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 19910,

Type D,EM,CT,EW,EX,L,LB,LS,M,T,W <or H for help> ?

22,960

Output to line-Printer <Y or N> ? N

 $(39, 1)$

OGEE .M44

OFG: 4 12-MAY-83

* 22 GAUGE GALV. SHEETMETAL

* 8'X8'X20'L OGEE / OFFSET 5'

FITTER BEGINS AT LAPOUT

A1	B0	G1	A6	B0	P3	A0	4.00	440.
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A1	B0	G1	M1	X16	IO	A0	4.00	760.
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A6  B0  G1  M1  X0  I3  A0          1.00      110.
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A1	B0	G1	A6	B0	P3	A0	4.00	440.
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A1	B0	G1	A16	B0	P1	A0	1.00	190.
----	----	----	-----	----	----	----	------	------

Type D,EM,CT,EW,EX,L,LU,LS,M,T,W <or H for help> ?

24,900

File Description ? FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE

Output to line-printer <Y or N> ? N

(39, 1)

FIT 0 W11

OGEE .M45

FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE OFFSET WITH
EDGER (ROTARY MACHINE) AT SHEETMETAL SHOP
PER OGEE

OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 12
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X20"L OGEE / OFFSET 5'
FITTER BEGINS AT EDGER

1 POSITION SHEETMETAL FROM CART AT EDGER TO EDGER WITH 4
STEPS F 2

A1	B0	G1	A6	B0	P6	A0	2.00	280.
----	----	----	----	----	----	----	------	------

2 PUSH EDGER-SWITCH PROCESS F 4

A1	B0	G1	M1	X42	IO	A0	4.00	1800.
----	----	----	----	-----	----	----	------	-------

3 PUSH AND GUIDE SHEETMETAL THROUGH EDGER WITH 3 STEPS F
4

A6	B0	G1	M1	X0	I3	A0	4.00	440.
----	----	----	----	----	----	----	------	------

4 REPLACE SHEETMETAL FROM EDGER TO CART AT EDGER WITH 4
STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

5 MOVE CART WITH SHEETMETAL FROM EDGER TO PITTSBURGH

A1	B0	G1	A16	B0	P1	A0	1.00	190.
----	----	----	-----	----	----	----	------	------

TOTAL	TMU	2930.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

27,830

File Description ? FORM PITTSBURGH LOCKS FOR OGEE

! f Output to line-Printer <Y or N> ? N

(39, 1)
FIT .W11 OGEE .M46
FORM PITTSBURGH LOCKS FOR OGEE OFFSET WITH PITTSBURGH MACHINE AT
SHEETMETAL SHOP
PER OGEE OFG: 4 12-MAY-83
NASSCO SHEETMETAL SHAPE 12
* 22 GAUGE GLAV. SHEETMETAL
* 8'X8'X20'L OGEE / OFFSET 5'
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 PUSH PITTSBURGH-BUTTON PROCESS F 4

A1 B0 G1 M1 X32 IO A0 4.00 1400.

3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 3
STEPS F 4

A6 B0 G1 M1 X0 I3 A0 4.00 440.

4 REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

5 MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 2660.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

30,490

File Description ? POSITION SPACERS IN PITTSBURGH LOCKS FOR OGEE

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 OGEE .M47
POSITION SPACERS IN PITTSBURGH LOCKS FOR OGEE OFFSET WITH HAMMER
AT SHEETMETAL SHOP
PER OGEE OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 12
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X20' OGEE OFFSET 5'
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (8)	1.00	600.
3	POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	A1 B0 G1 A1 B0 P6 A0	4.00	360.
4	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (8)	1.00	360.
5	PLACE MASKING-TAPE TO SHEETMETAL AT WORKTABLE F 8	A1 B0 G1 A1 B0 P3 A0	8.00	480.
6	MOVE CART WITH SHEETMETAL FROM WORKTABLE TO ROLLER	A1 B0 G1 A54 B0 P1 A0	1.00	570.
TOTAL TMU				2590.

Type B,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

33080

File Description ? FORM RADIUS ON WRAPPERS FOR OGEE

Output to line-printer <Y or N> ? N

(39, 1)

FIT 0 W11

OGEE .M48

FORM RADIUS ON WRAPPERS FOR OGEE OFFSET WITH HAND-ROLLER AT
SHEETMETAL SHOP

PER OGEE

OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 12

* 22 GAUGE GALV. SHEETMETAL

* 8'X8'X20'L OGEE / OFFSET 5'

FITTER BEGINS AT WORKBENCH

1 PLACE SHEETMETAL FROM FITTER AT WORKBENCH TO
HAND-ROLLER AT WORKBENCH WITH 3 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT HAND-ROLLER AT
WORKBENCH 5 SPINS USING HAND F 3

A1 B0 G1 A1 B0 P1 F10 A0 B0 P0 A0 3.00 420.

3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 6

A1 B0 G1 M6 X0 I0 A0 6.00 480.

4 POSITION SHEETMETAL [WRAPPERS] FROM HAND-ROLLER AT
WORKBENCH TO SHEETMETAL [CHEEK] AT WORKBENCH WITH 3
STEPS

A1 B0 G1 A6 B3 P6 A0 1.00 170.

5 MOVE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO
WORKTABLE

A67 B3 G1 A67 B3 P1 A0 1.00 1420.

TOTAL TMU 2600.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

36,680

22"X15"X33"LG. OGEE OFFSET. OFFSET 8"

<u>FAB</u>	<u>73,550</u>	<u>44 MIN.</u>
<u>MARK OUT</u>	<u>27,080</u>	<u>16 MIN.</u>
<u>TOTAL</u>	<u>100,530</u>	<u>60 MIN.</u>

Please input file <OGEE.M20> ?

'ile Description ? MARK OUT CHEEKS FOR OGEE

Output to line-printer <Y or N) ? N

(39, 3)

FIT .wo9

OGEE

MARK OUT CHEEKS FOR OGEE OFFSET WITH AWL AT SHEETMETAL SHOP

PER OGEE

OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12

* HULL 414

* DRAWING 501-062

* v2-1099

* V6-7607

* 18 GAUGE GALV. SHEETMETAL

* 22'X15'X33'L OGEE, OFFSET 8'

* MARK OUT CHEEKS WITH TEMPLATE

FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PLACE 2 WEIGHTS FROM WORKTABLE TO TEMPLATES AT WORKTABLE WITH 3 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
3	MARK OUTLINE FROM TEMPLATES TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6)	1.00	1120.
4	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 8	A1 B0 G1 A6 B0 P6 A0	8.00	1120.
5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 PO F3)A1 B0 P1 A0 (8)	1.00	360.
6	REPLACE 2 WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
7	REPLACE TEMPLATES FROM SHEETMETAL TO WORKTABLE WITH 3 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
8	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6)	1.00	1120.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 50 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (50)	1.00	2540.
10	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 50 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (50)	1.00	2540.

TOTAL TMU 9740.

Please inPut file <OGEE,M21> ?

File Description ? MARK OUT WRAPPERS FOR OGEE

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W09 **OGEE** ~~XXXX~~
MARK OUT WRAPPERS FOR OGEE WITH AWL AT SHEETMETAL SHOP
PER OGEE OFG: 4 07-APR-83
NASSCO SHEETMETAL SHAPE #12
* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7607
* 18 GAUGE GALV. SHEETMETAL
* 22'X15'X33'L OGEE, OFFSET 8'
* MARK OUT WRAPPERS WITHOUT TEMPLATE
FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7) A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (4)	1.00	1400.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 8 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (8)	1.00	440.
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 4 A1 B0 G1 A6 B0 P6 A0	4.00	560.
4	MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4)	1.00	760.
5	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL A/WORKTABLE WITH 3 STEPS F 8 A1 B0 G1 A6 B0 P6 A0	8.00	1120.
6	MARK CORNERS ON SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AND ASIDE PF 8 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R6)A1 B0 P1 A0 (8)	1.00	680.
7	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 8 A1 B0 G1 A6 B0 P6 A0	8.00	1120.
8	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7) A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (8)	1.00	360.
9	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2 A1 B0 G1 A6 B0 P6 A0	2.00	280.
10	MARK LINES FROM STRAIGHTEDGE AT WORKTABLE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (2)	1.00	400,
11	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 11 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (11)	1.00	2020.
12	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND		

ASIDE PF 92 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (92)	1.00	4640.
13	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	2640.
14	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
15	MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR		
	A1 B0 G1 A67 B0 P1 A0	1.00	700.

TOTAL TMU 17340,

Type .D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

27,080

Please inPut file <OGEE.M22> ?

File Description ? SHEAR SHEETMETAL FOR OGEE

Output to line-printer <Y or N> ? N

(391 3)

FIT .w09

OGEE

SHEAR SHEETMETAL FOR OGEE WITH SMALL 8 FT. SHEAR AT SHEETMETAL
SHOP

PER OGEE

OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12

* HULL 414

* DRAWING 501-062

* V2-1099

* V6-7607

* 18 GAUGE GALV. SHEETMETAL

* 22'X15'X33'L OGEE, OFFSET 8'

* SHEAR 4,1'STRIPS --

f FOR SPACERS WHEN ROLLING

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS

A1	B0	G1	A6	B0	P6	A0	1.00	140.
----	----	----	----	----	----	----	------	------

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

A1	B0	G1	M1	X6	IO	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH
4 STEPS F 8

A1	B0	G1	A6	B0	P6	A0	8.00	1120.
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4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8

A1	B0	G1	M1	X6	IO	A0	8.00	720.
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5 REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT
SMALLSHEAR -WITH 20 STEPS

A1	B0	G1	A32	B0	P3	A0	1.00	370.
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6 MOVE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE

A1	B0	G1	A67	B3	P1	A0	1.00	730.
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TOTAL TMU 3170.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

T

Please input file <OGEE.M23> ?

File Description ? SHEAR RADIUS ON CHEEKS FOR OGEE

Output to line-printer <Y or N> ? N

(39, 3)
FIT .w09 OGEE
SHEAR RADIUS ON CHEEKS FOR OGEE WITH UNI-SHEAR AT SHEETMETAL SHOP
PER OGEE OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12
* HULL 414
* DRAWING 501-062
* v2-1099
* V6-7607
* 18 GAUGE GALV. SHEETMETAL
* 22'X15'X33'L OGEE, OFFSET 8'
* TURN UP EDGE CORNERS ON CHEEKS FOR EDGER
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.1
2	GRIP SHEETMETAL AT WORKTABLE-USING VISEGRIPS AND ASIDE P F 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (4)	1.00	240.
3	MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE		
	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
4	OPERATE UNISHEAR AT WORKTABLE PROCESS F 4		
	A1 B0 G1 M6 X173I0 A0	4.00	7240.
5	CUT CORNERS ON SHEETMETAL AT WORKTABLE WITH 2 STEPS 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)		
	A1 B0 G1 (A3 B0 P3 C3)A1 B0 P1 A0 (16)	1.00	1480,
6	FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AND ASIDE PF 16 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (16)	1.00	1160.
7	GRIP AND TWIST EDGES ON CHEEKS AT WORKTABLE 1 TWIST USING VISEGRIPS AND ASIDE PF 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (4)	1.00	240.
8	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	B0 G1 A6 B0 P3 A0	2.00	220.
9	MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT		
	A1 B0 G1 A54 B0 P1 A0	1.00	570.
	TOTAL TMU		13340.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

16,510

Type D,EM,CT,EW,EX,L,LD,LS,M

Please input file <OGEE.M24> ?

File Description ? FORM LAP ENDS FOR OGEE

OutPut to line-printer <Y or N> ? N

(39, 3)

FIT 0 w09

OGEE

FORM LAP ENDS FOR OGEE WITH LAPOUT MACHINE AT SHEETMETAL SHOP
PER OGEE OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12

* HULL 414

* DRAWING 501-062

* V2-1099

* V6-7607

* 18 GAUGE GALV. SHEETMETAL

* 22'X15'X33'L OGEE, OFFSET 8'

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 4

A1	B0	G1	A6	B0	P3	A0	4.00	440.
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2 OPERATE LAPOUT-SWITCH PROCESS F 4

A1	B0	G1	M6	X16	IO	A0	4.00	960.
----	----	----	----	-----	----	----	------	------

3 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 4

A1	B0	G1	A6	B0	P3	A0	4.00	440.
----	----	----	----	----	----	----	------	------

4 MOUE CART WITH SHEETMETAL FROM LAPOUT TO EDGER

A1	B0	G1	A16	B0	P1	A0	1.00	190.
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TOTAL TMU 2030.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

.18,540

T

Please input file <OGEE,M25> ?

File Description ? FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE

Output to line-printer <Y or N> ? N

(39, 3)

FIT .w09

OGEE

FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE WITH EDGER AT SHEETMETAL
SHOP

PER OGEE

OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12
* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7607
* 18 GAUGE GALV. SHEETMETAL
* 22'X15'X33'L OGEE, OFFSET 8'
* START CHEEKS IN MACHINE--
X WITH PREVIOUSLY CRIMPED EDGE
FITTER BEGINS AT EDGER

1	POSITION SHEETMETAL FROM CART AT EDGER TO EDGER WITH 4		
	STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	OPERATE EDGER-SWITCH PROCESS F 2		
	A1 B0 G1 M6 X42 IO A0	2.00	1000.
3	PUSH AND GUIDE SHEETMETAL2 THROUGH EDGER WITH 3 STEPS F		
	4		
	A6 B0 G1 M1 X0 I3 A0	4.00	440.
4	REPLACE SHEETMETAL FROM EDGER TO CART AT EDGER WITH 4		
	STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
5	MOVE CART WITH SHEETMETAL FROM EDGER TO PITTSBURGH		
	A1 B0 G1 A16 B0 P1 A0	1.00	190.
		TOTAL TMU	2130.

Type D,EM,CT,EW,EX,L,LD,LS,,M,T,W <or H for help> ?

20,670

'T

Please input file <OGEE.M26> ?

File Description ? FORM PITTSBURGH LOCK FOR OGEE

Output to line-Printer <Y or N> ? N

(39, 3)
FIT .W09 OGEE ~~XXXXXXXXXX~~
FORM PITTSBURGH LOCK FOR OGEE WITH PITTSBURGH MACHINE AT
SHEETMETAL SHOP
PER OGEE OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12
* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7607
* 18 GAUGE GALV. SHEETMETAL
* 22'X15'X33'L OGEE? OFFSET 8'
* USE 16 To 18 GAUGE PITTSBURGH MACHINE
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2 PUSH PITTSBURGH-BUTTON PROCESS F 2	A1 B0 G1 M1 X32 IO A0	22.00	700.
3 PUSH AND GUIDE SHEETMETAL, THROUGH PITTSBURGH WITH 3 STEPS PF 4 (4 5 6 7)	A& B0 G1 (M1 X0 I3 A0)	1.00	230.
4 REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
5 MOVE CART WITH SHEETMETAL2 FROM PITTSBURGH TO WORKTABLE	A1 B0 G1 A54 B3 P1 A0	1.00	600.
TOTAL TMU			1970.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

22640

T

Please input file <OGEE.M27> ?

File Description ? POSITION SPACERS IN PITTSBURGH LOCKS FOR OGEE

Output to line-printer <Y or N> ? N

(39, 3)
FIT ,w09 O G E E w
POSITION SPACERS IN PITTSBURGH LOCKS FOR OGEE WITH HAMMER AT
SHEETMETAL SHOP
PER OGEE OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12
* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7607
* 18 GAUGE GALV. SHEETMETAL
* 22'X15'X33'L OGEE, OFFSET 8'
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	POSITION SHEETMETAL [SPACERS] TO SHEETMETAL [PITTSBURGH LOCKS3 AT WORKTABLE WITH 3 STEPS F 4	A1 B0 G1 A6 B0 P6 A0	4.00	560.
3	FASTEN SHEETMETAL [SPACERS] TO SHEETMETAL [PITTSBURGH LOCKS] AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7).	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (8)	1.00	360.
4	PLACE MASKING-TAPE FROM WORKTABLE TO SHEETMETAL [SPACERS] AT WORKTABLE WITH 4 STEPS F 8	A1 B0 G1 A6 B0 P3 A0	8.00	880.
5	FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (16)	1.00	1160.
6	MOUE SHEETMETAL FROM WORKTABLE TO ROLLER	A1 B0 G1 A54 B0 P1 A0	1.00	570.
			TOTAL TMU	3750.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

26,390

T

Please input file <OGEE.M28> ?

File Description ? FORM RADIUS ON WRAPPERS FOR OGEE

Output to line-printer <Y or N> ? N

(39, 3)

FIT ● W09

OGEE [REDACTED]

FORM RADIUS ON WRAPPERS FOR OGEE WITH ROLL FORMER MACHINE AT
SHEETMETAL SHOP
PER OGEE

OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12

* HULL 414
* DRAWING 501-062
* V2-1099
* V6-7607
* 18 GAUGE GALV. SHEETMETAL
* 22'X15'X33'L OGEE, OFFSET 8'
* CHECK RADIUS ON WRAPPERS--
* WITH CHEEK RADIUS
FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL FROM FITTER AT ROLLER TO ROLLER WITH
3 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL 2 AT ROLLER 3 SPINS
USING HAND F 12

A1 B0 G1 A1 B0 P1 F6 A0 B0 PO A0 12.00 1200.

3 PUSH ROLLER-BUTTON AT ROLLER PROCESS F 24

A1 B0 G1 M1 X96 IO A0 24.00 23760.

4 POSITION SHEETMETAL FROM ROLLER TO SHEETMETAL A1-
ROLLER WITH 3 STEPS F 10

A1 B0 G1 A6 B3 P6 A0 10.00 1700.

5 MOVE SHEETMETAL FROM ROLLER TO WORKTABLE

A54 B0 G1 A54 B3 P1 A0 1.00 1130.

TOTAL TMU 28010.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

54,400

Please input file <OGEE.M28> ?

File Description ? FORM RADIUS ON WRAPPERS FOR OGEE

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W09

O G E E -

FORM RADIUS ON WRAPPERS FOR OGEE WITH ROLL FORMER MACHINE AT
SHEETMETAL SHOP

PER OGEE

OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12

* HULL 414

* DRAWING 501-062

* V2-1099

* V6-7607

* 18 GAUGE GALV. SHEETMETAL

* 22'X15'X33'L OGEE, OFFSET 8'

* CHECK RADIUS ON WRAPPERS--

X WITH CHEEK RADIUS

FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL FROM FITTER AT ROLLER TO ROLLER WITH
3 STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
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2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3 SPINS
USING HAND F 12

A1	B0	G1	A1	B0	F1	F6	A0	B0	PO	A0	12.00	1200.
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3 PUSH ROLLER-BUTTON AT ROLLER PROCESS F 24

A1	B0	G1	M1	X96	IO	A0	24.00	23760.
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4 POSITION SHEETMETAL FROM ROLLER TO SHEETMETAL AT
ROLLER WITH 3 STEPS F 10

A1	B0	G1	A6	B3	P6	A0	10.00	1700 .
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5 MOVE SHEETMETAL FROM ROLLER TO WORKTABLE

A54	B0	G1	A54	B3	P1	A0	1.00	1130,
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TOTAL TMU	28010.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help> ?

54,400

Please input file <OGEE.M29>.

File Description ? ASSEMBLE CHEEKS & WRAPPERS FOR OGEE

Output to line-printer <Y or N> ? N

(39,3)

FIT .W09 O G E E
ASSEMBLE CHEEKS AND WRAPPERS FOR OGEE WITH HAMMER AT SHEETMETAL
SHOP
PER OGEE OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12

* HULL 414
* DRAWING 501-062
* V-1099
* V6-7607
* 18 GAUGE GALV. SHEETMETAL
* 22'X15'X33'L OGEE, OFFSET 8'
* REMOVE SPACERS FROM PITTSBURGH LOCKS

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM FITTER AT WORKTABLE TO WORKTABLE WITH 3 STEPS	A1 B0 G1 A6 R0 P3 A0	1.00	110.
2	REPLACE MASKING-TAPE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 8	A1 E0 G1 A6 B0 P3 A0	8.00	880.
3	LOOSEN SHEETMETAL [SPACERS] FROM SHEETMETAL [PITTSBURGH LOCKS] AT WORKTABLE 2 STRIKES USING HAMMER AND ASIDE PF 4 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 L6)A1 E0 P1 A0 (4)	1.00	320.
4	POSITION SHEETMETAL [CHEEK] FROM WORKTABLE TO SHEETMETAL [WRAPPER] AT WORKTABLE WITH 3 STEPS F 2	A1 E0 G1 A6 B0 P6 A0	2.00	280.
5	MOVE BARCLAMP2 FROM TOOLROOM TO WORKTABLE	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
6	FASTEN BARCLAMP TO SHEETMETAL AT WORKTABLE 5 WRIST-TURNS USING HAND F 6	A1 E0 G1 A1 B0 P1 F10 A0 B0 P0 A0	6.00	840.
7	POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 24	A1 B0 G1 A6 B0 P6 A0	24.00	3360.
8	FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AND ASIDE PF 24 (4 5 6 7)	A1 E0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (24)	1.00	1720.
9	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AND ASIDE PLF 12 (4 5 6 7)	A1 B0 G1 A1 B0 P0 F6 A1 E0 P1 A0	1.00	110.
10	LOOSEN BARCLAMP FROM SHEETMETAL AT WORKTABLE 5 WRIST-TURNS USING HAND PF 6 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 L10)A0 B0 P0 A0 (6)	1.00	740.
11	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AND ASIDE PF 26 (4 5 6 7)	A1 B0 G1 (A1 E0 P0 F32)A1 B0 P1 A0 (26)	1.00	8620.
12	INSPECT SHEETMETAL AT WORKTBLE 9 POINTS	A0 B0 G0 A0 E0 P0 T10 A0 E0 P0 A0	1.00	100.

TOTAL TMU

19050.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

74,150

SHEET METAL SHAPE # 12

10'- $\frac{1}{2}$ " x 6'- $\frac{1}{2}$ " to 8" x 3'- $\frac{1}{2}$ " x 17' LG. OGEE OFFSE

<u>FAB</u>	<u>22600</u>	<u>13 MIN.</u>
<u>MARK. out</u>	<u>25930</u>	<u>15 MIN.</u>
<u>WELD</u>	<u>30860</u>	<u>19 MIN.</u>
<u>TOTAL TMU</u>	<u>79390</u>	<u>48 MIN.</u>

Please input file <OGEE.M01> ?

File Description ? MARK OUT CHEEKS FOR OGEE OFFSET

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W09 OGEE .M01
MARK OUT SHEETMETAL FOR OGEE OFFSET WITH AWL AT SHEETMETAL SHOP
PER OGEE OFG: 4 06-APR-83

NASSCO SHEETMETAL SHAPE #12
* U.S.S. TUSCA
* WORK ORDER 3090-432
* PC. 13
* SKETCH 753
* ,060 ALUMINUM
* 10 1/2'X6 1/2' TO 8X3 1/2' OGEE
* OFFSET 17'L
* MARK OUT CHEEKS USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1	PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2		
	A1 E0 G1 A3 B0 P3 A0	2.00	160.
2	POSITION 2 WEIGHTS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2		
	A1 E0 G1 A3 B0 P6 A0	2.00	220.
3	MARK OUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 E0 P1 A0 (6)	1.00	1120.
4	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT 'WORKTABLE WITH 3 STEPS F 8		
	A1 B0 G1 A6 B0 P6 A0	8.00	1120.
5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING -HAMMER AND ASIDE PF 8 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (8)	1.00	360.
6	REPLACE WEIGHTS TEMPLATE AT SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F-2--		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
7	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2		
	A1 P0 G1 A6 B0 P3 A0	2.00	220.
8	MARK CUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)		
	A1 E0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6)	1.00	1120.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE I DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 82 (4 5 6 7)		
	A1 B0 G1 (A1 E30 P1 R3)A1 B0 P1 A0 (82)	1.00	4140.
10	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 58 (4 5 6 7		
	A1 B0 G1 (A1 B0 P1 R3)A1-B0 P1 A0 (58)	1.00	2940.

OGEE M.O.#1

TOTAL TMU

11620.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? ~r

11620
14310

Please input File <OGEE.M02>

DESCRIPTION MARK OUT WRAPPERS FOR OGEE

OUTPUT to line-Printer <Y or N> ? N

(39,3)
FIT .W09 OGEE .M02
MARK OUT WRAPPERS FOR OGEE OFFSET WITH AWL AT SHEETMETAL SHOP
PER OGEE OFG: 4 06-APR-83

NASSCO SHEETMETAL SHAPE # 1 2

- * U.S.S. TUSCA
- * WORK ORDER 3090-432
- * PC. 13
- * SKETCH 753
- * .060 Aluminum
- * 10 1/2'X6 1/2' TO 8X3 1/2 OGEE
- * OFFSET 17'L
- * **FITTER BEGINS AT WORKTABLE**

1. PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH STEPS F 2
A1 B0 G 1 A6 E0 P3 A0 2.00 220.
- 2 POSITION 2 WEIGHTS FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 6 STEPS F 2
A1 B0 G1 A6 B0 P6 A0 2.00 280.
- 5 MARK OUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING AWL AND ASIDE PF 6 (4 5 6 7).
A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A 0 (6) 1.00 1120.
- 4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 3 STEPS F 12
A1 B0 G1 A6 E0 P6 A0 12.00 1680.
- 5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
HAMMER AND ASIDE PF 12 (4 5 6 7)
A1 B0 G1 (A1 B0 P0 F3)A1 B0 F1 A0 (12) 1.00 520.
- 6 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE
WITH 3 STEPS F 2
A1 E0 G1 A6 B0 P3 A0 2.00 220.
- 7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 3 STEPS F 2
A1 E0 G1 A6 B0 F3 A0 2.00 220.
- 8 MARK OUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE
5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4
5 6 7)
A1 B0 G1 (A1 B0 P1 R16)A1 B0 F1 A0 (6) 1.00 1120.
- 9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 51 (4 5 6 7) F 2
A1 B0 G1 (A1 B0 P1 R3)A1 B0 F1 A0 (51) 2.00 5180.
- 10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 58 (4 5 6 7)
A1 B0 G1 (A1 B0 F1 R3)A1 B0 P1 A0 (58) 1.00 2940.
- 11 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110.

12 MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR		
A1 B0 G1 A67 B0 P1 A0	1.00	700.
TOTAL	TMU	14310.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

Please input file <OGEE.M03> ?

File Description ? SHEAR SHEETMETAL FOR OGEE

Output to line-printer (Y or N) ? N

(39, 3)

FIT .W09

OGEE .M03

SHEAR SHEETMETAL FOR OGEE OFFSET WITH SMALL 8 FT. SHEAR AT

SHEETMETAL SHOP

PER OGEE

OFG: 4 06-APR-83

NASSCO SHEETMETAL SHAPE #12

* U.S.S. TUSCA

* WORK ORDER 3090-432

* PC. 13

* SKETCH 753

* .060 ALUMINUM

* 10 1/2'X6 1/4' TO 8'X3 1/2' OGEE

* OFFSET 17'L

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SHALLSHEAR WITH 4 STEPS

A1	E0	G1	A6	B0	P6	A0	1.00	140.
----	----	----	----	----	----	----	------	------

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

-A1	B0	G1	M1	X6	I0	A0	1.00	90.
-----	----	----	----	----	----	----	------	-----

J POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH
3 STEPS F 11

A1	B0	G1	A6	B0	P6	A0	11.00	1540.
----	----	----	----	----	----	----	-------	-------

- 4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 11

A1	B0	G1	M1	X6	I0	A0	11.00	990.
----	----	----	----	----	----	----	-------	------

J REPLACE SHEETMETAL2 FROM SHALLSHEAR TO CART.AT

SMALLSHEAR WITH 16 STEPS

A1	B0	G1	A32	B0	P3	A0	1.00	370.
----	----	----	-----	----	----	----	------	------

0 MOVE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE

A 1	B 0	B 1	A07	B3	P1	A0	1.00	730.
-----	-----	-----	-----	----	----	----	------	------

TOTAL TMU 3860.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>. ?

Please input file <OGEE.M04> ?

File Description ? SHEAR RADIUS FOR OGEE

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W09 OGEE .M04
FROM SHEETMETAL FOR OGEE OFFSET RADIUS WITH LAPOUT MACHINE AT
SHEETMETAL SHOP>
PER OGEE OFG: 4 06-APR-83
NASSCO SHEETMETAL SHAPE #12
* U.S.S. TUSCA
* WORK ORDER 3090-432
* PC. 13
* SKETCH 753
* .060 ALUMINUM
* 10 1/2'X6 1/4' TO 8'X3 1/2' OGEE
* OFFSET 17'L
FITTER BEGINS WORKTABLE

1 PLACE SHEETMETAL SHEETMETAL CART AT WORKTABLE TO WORKTABLE
WITH 3 STEPS -

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE

A96	B0	G1	A96	B6	P1	A0	1.00	1970.
-----	----	----	-----	----	----	----	------	-------

3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 5

A1	B0	G1	M0	X17310	A0	5.00	0950.
----	----	----	----	--------	----	------	-------

4 FASTEN (FLATTEN) CORNERS ON SHEETMETAL AT WORKTABLE 1
STRIKE USING HAMMER AND ASIDE PF I6 (4 5 6 7)

A1	B0	G1	(A1 B0 P0 F3)	A1	B0	P1	A0	(10)	1.00	480.
----	----	----	-----------------	----	----	----	----	------	------	------

5 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

6 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT

A1	B0	G1	A54	B0	P1	A0	1.00	570.
----	----	----	-----	----	----	----	------	------

TOTAL TMU	12490.
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

16,350

~~PLEASE INPUT FILE <OGEE.M05> ?~~

~~FILE DESCRIPTION: FORM LAPOUT FOR OGEE~~

Output to line-printer <Y or N> ? N

F I T³⁹ . W⁰ 9

OGEE .M05

FORM LAPOUT FOR OGEE OFFSET WITH LAPOUT MACHINE AT SHEETMETAL SHOP

PER OGEE ~~UPG: 4 06-APR-83~~

~~MASSCO SHEETMETAL SHAPE #12~~

~~* U.S.S. TUSCA~~

* WORK-ORDER 3090-432

* PC. 13

* SKETCH 753

* .060 ALUMINUM

* 10 1/2'X6 1/4' TO 8'X3 1/2' OGEE

* OFFSET 17'L

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 4

A1 B0 G1 A6 B0 P3 A0 4.00

2 PUSH LAPOUT SWITCH PROCESS

A1 B0 G1 M1 X16 I0 4.00 760.

3 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH

4 STEPS F 4

A1 B0 G1 A6 B0 P3 A0 4.00 4 4 0 .

4 MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO WORKBENCH (
HAND-ROLLER)

A1 B0 G1 A24 P1 A0 1.00 300.

TOTAL TMU 1940.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

18290

Please input file <OGEE.M06> ?

File Description ? FORM OGEE

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W09 OGEE . M 0 6
FORM SHEETMETAL FOR OGEE WITH HAND OPERATED ROLLER AT SHEETMETAL
SHOP
PER OGEE OFG: 4 06-APR-83

NASSCO SHEETMETAL SHAPE #12

- * U.S.S. TUSCA
- * WORK ORDER 3090-432
- * PC. 13
- * SKETCH 753
- * .060 ALUMINUM
- * 10 1/2'X6 1/4' TO 8'X3 1/2'

FITTER BEGINS AT WORKBENCH

1 PLACE SHEETMETAL2 FROM CART AT WORKBENCH TO WORKBENCH
WITH 3 STEPS F 4

A1 E0 G1 A6 D0 F3 A0 4.00 440.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT HAND-ROLLER 5
SPINS USING HAND F 3

A1 B0 G1 A1 E0 P1 F10 A0 D0 P0 A0 3.00 420,

3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 20

A1 30 G1 M6 X0 I0 A0 20.00 1600.

4 REPLACE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO
CART AT WORKBENCH WITH 4 STEPS

A1 E0 G1 A6 B0 F3 A0 1.00 110.

3 MOVE CART WITH SHEETMETAL2 FROM HAND-ROLLER AT
WORKBENCH TO PED.GRINDER

A1 B0 G1 A32 B0 P1 A0 1.00 350.

TOTAL TMU 2920.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W for H for help> ?'

2/2/0

Please input file <OGEE.M07> ?

File Description ? CLEAN OGEE BEFORE WELDING

Output to line-printer <Y or N> ? N

(39, 3)
FIT .W09 OGEE .M07
CLEAN OGEE FOR WELDING WITH PEDESTAL GRINDER AT SHEETMETAL SHOP
PER OGEE OFG: 4 06-APR-83
NASSCO SHEETMETAL SHAPE #12
* U.S.S. TUSCA
* WORK ORDER 3090-432
* PC. 13
* SKETCH 753
* .060 ALUMINUM
* 10 1/2'X6 1/4' TO 8'X3 112' OGEE
* OFFSET 17'L
FITTER BEGINS AT PED.GRINDER

1 PLACE SHEETMETAL2 FROM CART AT PED.GRINDER TO
PED.GRINDER WITH 4 STEPS F 4
A1 E0 G1 A6 B0 F3 A0 4.00 440.
2 PUSH GRINDER-BUTTON PROCESS F 4
A1 E0 G1 M1 X6 IO A0 4.00 360.
3 REPLACE SHEETMETAL2 FROM PED.GRINDER TO CART AT
PED.GRINDER WITH 4 STEPS
A1 E0 G1 A6 B0 F3 A0 1.00 110.
4 MOUE CART FROM PED.GRINDER TO WORKTABLE
A1 B0 G1 A42 E3 P1 A0 1.00 480.

TOTAL TMU 1390.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

22,600

Please input file <OGEE.M08> ?

File Description ? WELD OGEE OFFSET

Output to line-Printer <Y or N> ? N

(39,101)

WELD .W01 OGEE .M08
WELD OGEE OFFSET WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH
PER OGEE OFFSET OFG: 4 21-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 12

* U.S.S. TUSCALOOSA
* WORK ORDER:3090-432 PC
* 13 SK-75
* ,060 ALUMINUM 10 1/2X6 1/4T08X3 1/2
* --OGEE OFFSET 17' L WITH 6'RADIUS & 8'-
* --RADIUS
* WELDING DONE IN WELD AREA BOOTH
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FITTER MOVE CART FROM WORKTABLE TO WELDTABLE		
	A1 B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 E0 P3 A0	2.00	220,
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 B0 G1 M1 X0 I0 A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M1 X0 I0 A1	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND		
	A1 B0 G1 A1 B0 F1 F3 A0 E0 P0 A0	1.00	70.
7	WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M3 X0 I0 A1	1.00	60.
8	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE		
	A3 B3 G1 A1 E0 P6 A0	1.00	140.
9	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS		
	A1 E0 G1 M1 X10 I0 A0	1.00	130.
10	WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 11		
	A1 B0 G1 A1 B0 P6 A0	11.00	990.
11	FULL WELDHOD FROM UP AT WELDOR TO DOWN AT WELDOR F 11		
	A1 B0 G1 M1 X0 I0 A1	11.00	440.
12	WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETL ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 11		
	A1 B0 G1 A1 B6 P6 A0	11.00	1650.
13	OPERATE WELD STINGER-BUTTON1 PROCESS F 23		

OGEE MO - 8

	A1	B0	G1	M6	X81	I0	A0	23.00	204700.
14	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 11								
	A1	B0	G1	M1	X0	I0	A1	11.00	440.
15	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10 ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF 23 (4567)								
	A1	B0	G1	(A1 B0 P1 C10)	A1	B0	P1 A0 (23)	1.00	2800.
16	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS								
	A1	B0	G1	A6	B0	F3	A0	1.00	110.
17	FITTER MOVE CART FROM WELDTABLE TO WORKTABLE								
	A1	E0	G1	A131B0	P1	A0		1.00	1340.
							TOTAL TMU		30860.

File Description ? WELD OGEE OFFSET

Output to line-Printer <Y or N> ?

SHEET METAL SHAPE # 13

L 3" x 6" x 20'-1/2" LG OFFSET OFFSET 6'-1/2"

FAB.	40,590	24. MIN.
MARK OUT	27,240	16. MIN.
TOTAL	67,830	41 MIN.

Please input file <OFFSET.M01> ?

File Description ? MARK OUT CHEEKS FOR OFFSET

Output to line printer <Y or N> ? N

(39, 3)
FIT ,W08 OFFSET,M01
MARK OUT SHEETMETAL FOR OFFSET CHEEKS WITH AWL AT SHEETMETAL SHOP
PER OFFSET OFG: 4 25-MAR-83

NASSCO SHEETMETAL SHAPE #13

* HULL 418

* DRAWING 501-292

* V2-92008

* VS-1922

* 20 GAUGE GALV. SHEETMETAL

* 1.3'X6'X20 1/2'L (OFFSET 6 1/2')

* MARK CHEEKS USING TEMPLATE

FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PLACE 2 WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
3	MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 9 (4 5 6 7)		
	A1 B0 G1 (A1 P0 P1 R16)A1 B0 P1 A0 (9)	1.00	1660.
4	POSITION CPUNCH TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F = 8		
	A1 B0 G1 A6 B0 P6 A0	8.00	1120.
5	FASTEN CPUNCH TO SHEETMETAL WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)		
	A1 F0 G1 (A1 B0 P0 P1)A1 B0 P1 A0 (8)	1.00	360.
6	REPLACE 2 WEIGHTS FROM TEMPLATE TO WORKTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
7	REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE WITH 3 STEPS		
	A1 B0 G1 A6 E0 P3 A0	1.00	110.
8	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)		
	A1 B0 G1 (A1 P0 P1 R16)A1 B0 P1 A0 (8)	1.00	1480.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND HOLD PF 42 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A0 B0 P0 A0 (42)	1.00	2120.
10	FITTER MOVE BLACKPEN FROM FITTER TO SHEETMETAL AT WORKTABLE		
	A1 B0 G1 A1 B0 P1 A0	1.00	40.
11	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	2640.

OFFSET M.O.#1

TOTAL TMU

10140.

Type D,EX,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Please input file <OFFSET, M02> ?

File Description ? MARK OUT WRAPPERS FOR OFFSET

Output to line printer <Y or N> ? N

(39, 3)

FIT .W08

OFFSET,M02

MARK OUT SHEETMETAL FOR OFFSET WRAPPERS WITH AWL AT SHEETMETAL
SHOP
PER OFFSET

OFG: 4 25-MAR-83

NASSCO SHEETMETAL SHAPE #13.

* HULL 418
* DRAWING 501 292
* V2-92008
* V6 .1922
* 20 GAUGE GALV. SHEETMETAL
* 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')
* MARK OUT WRAPPERS WITHOUT TEMPLATE ATE
FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (G)	1.00	2760.	
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 8 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (8)	1.00	440.	
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 7			
	A1 B0 G1 A1 B0 P6 A0	7.00	630.	
4	MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 7 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (7)	1.00	1300.	
5	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8			
	A1 B0 G1 A1 B0 P6 A0	8.00	720.	
6	MARK CORNERS FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AND ASIDE PF 8 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R6)A1 B0 P1 A0 (8)	1.00	680.	
7	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8			
	A1 B0 G1 A1 B0 P6 A0	8.00	720.	
8	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 8 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (8)	1.00	360.	
9	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 11 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (11)	1.00	2020.	
10	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND HOLD PF 80 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R3)A0 B0 P0 A0 (80)	1.00	4020.	
11	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 52 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	2640.	

12 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

13 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR

A1 B0 G1 A67 B0 P1 A0 1.00 700.

TOTAL THU 17100.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Please input file <OFFSET.M03> ?

File Description ? SHEAR SHEETMETAL FOR OFFSET

Output to line printer <Y or N> ? N

(39, 3)
FIT .W08 OFFSET:M03
SHEAR SHEETMETAL FOR OFFSET WITH SMALL SHEAR AT SHEETMETAL SHOP
PER OFFSET OFG: 4 25 MAR-83
NASSCO SHEETMETAL SHAPTE #13
* HULL 418
* DRAWING 501 292
* V2-92008
* V6--1922
* 20 GAUGE GALV. SHEETMETAL
* 13'X6'X20 1/2"1 OFFSET (OFFSET 6 1/3")
* SHEAR 4-1'STRIPS FRO PITTSBURGH SPACERS
FITTER BEGINS AT SMALL.SHEAR

1	POSITION SHEETMETAL2 FROM CART CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	PUSH FOOTPEDAL. AT SMALLSHEAR PROCESS	A1 B0 G1 M1 X6 I0 A0	1.00	90.
3	POSITION SMEETMETAL. 2 FROM SMALLSHEAR TO SMALLSHEAR F 1 0	A1 B0 G1 A1 B0 P6 A0	10.00	900.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 10	A1 B0 G1 M1 X1 I0 A0	10.00	900.
5	REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS F 4	A1 B0 G1 A6 B0 P3 A0	4.00	440.
6	MOVE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE	A1 80 G1 A67 B3 P1 A0	1.00	730.
	TOTAL TMU			3200.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

$$700 + 3200 = 3900$$

File Description ? SHEAR RADIUS & CORNERS FOR OFFSET

Output to line-printer <Y-or N> ? N

(39, 3)
FIT .W11 OFFSET.M04
SHEAR SHEETMETAL FOR OFFSET RADIUS & CORNERS WITH UNI-SHEAR AT
SHEETMETAL SHOP
PER OFFSET OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE #13

* HULL 418.

* DRAWING 501-292

* V2-92008

* V6-1922

* L20 GAUGE GLAV. SHEETMETAL

* 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')

* BEND EDGE ON CHEEK CORNERS FOR EDGER

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220,

2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE

A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 OPERATE UNISHEAR PROCESS F 5

A1 B0 G1 M6 X173I0 A0 5.00 9050.

4 FASTEN (FLATTEN) CORNERS ON SHEETMETAL AT WORKTABLE 3
STRIKES USING HAMMER AND ASIDE PF 16 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (16) 1.00 1160.

5 GRIP AND TWIST SHEETMETAL [CHEEK EDGE] AT WORKTABLE 1

TWIST USING VISEGRIPS AND ASIDE PF 4 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 C1)A1 P0 P1 A0 (4) 1.00 240.

6 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

7 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO EDGER

A1 E0 G1 A67 B0 P1 A0 1.00 700.

TOTAL TMU 13560.

Type D, EH, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

17,460

Please input file <OFFSET.+M05> ?

File Description ? FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W08

OFFSET.M05

FORM SHEETMETAL FOR 90 DEGREE EDGE ON CHEEKS FOR OFFSET WITH
EDGER AT SHEETMETAL SHOP

PER OFFSET

OFG: 4 25-MAR-83

NASSCO SHEETMETAL SHAPE #13

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1922

* 20 GAUGE GALV. SHEETMETAL

* 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')

* BEGIN EDGES AT PREVIOUS BENT UP CORNERS

FITTER BEGINS AT EDGER

1 PLACE SHEETMETAL2 FROM CART AT EDGER TO EDGER WITH 4
STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

2 POSITION SHEETMETAL2 FROM EDGER TO EDGER WITH 4 STEPS

A1	B0	G1	A6	B0	P6	A0	1.00	140.
----	----	----	----	----	----	----	------	------

OPERATE EDGER-SWITCH PROCESS F 4

A1	B0	G1	M6	X42	I0	A0	4.00	2000.
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4 PUSH AND GUIDE SHEETMETAL2 THROUGH EDGER AT EDGER WITH
3 STEPS F 4

A6	B0	G1	M1	X0	I3	A0	4.00	440.
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5 REPLACE SHEETMETAL2 FROM EDGER TO CART AT EDGER WITH 4
STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

6 HOVE CART WITH SHEETMETAL2 FROM EDGER TO PITTSBURGH

A1	B0	G1	A16	B0	P1	A0	1.00	190.
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TOTAL TMU 3210.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help?) ?

20,670

File Description ? FORM PITTSBURGH LOCKS ON WRAPPER FOR OFFSET

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W11

OFFSET.M06

FORM SHEETMETAL FOR OFFSET LOCKS WITH PITTSBURGH AT SHEETMETAL
SHOP

PER OFFSET

OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE #13

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1922

* 20 GAUGE GALV. SHEETMETAL

* 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')

* BEFORE ROLLING RADIUS POSITION SPACERS

* POSITION SPACERS IN LOCKS

FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 PUSH PITTSBURGH-BUTTON PROCESS F 2

A1 B0 G1 M1 X32 I0 A0 2.00 700.

3 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 4
STEPS F 4

A6 B0 G1 M1 X0 I3 A0 4.00 440.

4 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2 . 0 0 220.

5 MOVE CART WITH SHEETMETAL2 FROM PITTSBURGH TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 2180,

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

22850

File Description ? POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET

Output to line-printer <Y or N> ? N

(39, 3)

FIT *W11

OFFSET.M07

POSITION SHEETMETAL FOR SPACERS IN OFFSET PITTSBURGH LOCKS WITH
HAMMER AT SHEETMETAL SHOP
PER OFFSET

OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE #13

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1922

* 20 GAUGE GALV. SHEETMETAL

* 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')

* POSITION SPACERS IN PITTS BEFORE ROLLING

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 FASTEN (FLATTEN) SHEETMETAL CORNERS AT WORKTABLE 3
STRIKES USING HAMMER AND ASIDE PF 8 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (8) 1.00 600.

3 PLACE SHEETMETAL (SPACERS 1 FROM WORKTABLE TO
SHEETMETAL AT WORKTABLE F 4

A1 B0 G1 A1 B0 P3 A0 4.00 240.

4 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 1 STRIKE
USING HAMMER AND ASIDE PF 8 (4 5 6 7)

A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (8) 1.00 360.

5 PLACE MASKING TAPE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 4

A1 B0 G1 A1 B0 P3 A0 4.00 240.

6 MOVE SHEETMETAL2 (THROAT & HEEL) FROM WORKTABLE TO
HAND-ROLLER AT WORKBENCH

A1 P0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 2390.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

25240

File Description ? FORM RADIUS ON WRAPPERS FOR OFFSET

Output to line-Printer <Y or N>? N

(39, 3)

FIT .,W11

OFFSET.M08

FORM . SHEETMETAL FOR RADIUS ON OFFSET WRAPPERS WITH
HAND OPERATED ROLLER AT SHEETMETAL SHOP
PER OFFSET

OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE #13

* HULL 418

* DRAWING 501-292

* V2-92008

* V6-1922

* 20 GAUGE GALV. SHEETMETAL

* 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')

* ROLL UP RADIUS WITH SPACERS IN PITTS.

FITTER BEGINS AT WORKBENCH

1 PLACE SHEETMETAL2 FROM FITTER AT WORKBENCH TO WORKBENCH
WITH 5 STEPS F 2

A1	B0	G1	A10	B0	P3	A0	2.00	300.
----	----	----	-----	----	----	----	------	------

2 FASTEN BOLT (ROLLS) TO SHEETMETAL2 AT HAND-ROLLER AT
WORKBENCH 5 SPINS USING HAND F 3

A1	B0	G1	k1	B0	F1	F10	A0	B0	P0	A0	3.00	420.
----	----	----	----	----	----	-----	----	----	----	----	------	------

3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 10

A1	B0	G1	M6	X0	I0	A0	10.00	800.
----	----	----	----	----	----	----	-------	------

4 LOOSEN BOLT (ROLLS) TO SHEETMETAL2 AT HAND-ROLLER AT
WORKBENCH 5 SPINS USING HAND F 2

A1	B0	G1	A1	B0	F1	L10	A1	B0	P0	A0	2.00	280.
----	----	----	----	----	----	-----	----	----	----	----	------	------

5 MOVE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO
WORKTABLE

A1	B0	G1	A67	B3	P1	A0	1.00	730.
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TOTAL	TMU	2530.
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Type D, EM, CT EW, EX, L, LD, LS, M, T, W <or H for help) ?

27,770

LD, LS, M, T, W <or H for help>

Please input file <OFFSET.M09> ?

File Description ? ASSEMBLE OFFSET

Output to line-printer <Y or N> ? N

```
( 39, 3)
FIT .W08                                OFFSET.M09
  ASSEMBLE SHEETMETAL FOR OFFSET WITH HAMMER AT SHEETMETAL SHOP
PER OFFSET                                OFG: 4 28-MAR-83
  NASSCO SHEETMETAL SHAPE #13
  * HULL 418
  *Y DRAWING 501-292
  * V2-92008
  * V6-1933
  * 20 GAUGE GALV. SHEETMETAL
  * 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')
  * REMOVE SPACERS FROM PITTSBURGH LOCKS
  FITTER BEGINS AT WORKTABLE

1 REPLACE MASKING-TAPE FROM SHEETMETAL AT WORKTABLE AND
  ASIDE TO WORKTABLE F 8
                                     A1 B0 G1 A1 B0 F3 A0      8.00      480.
2 LOOSEN SHEETMETAL ( STRIPES ) FROM SHEETMETAL AT
  WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 8 ( 4 5 6
  7 )
                                     A1 B0 G1 (A1 B0 P0 L3 )A1 B0 F1 A0 (8) 1.00      360.
3 MOVE BARCLAMP2 FROM TOOLROOM TO WORKTABLE
                                     A96 B0 G1 A96 B3 F1 A0      1.00      1970 .
4 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 4 STEPS
                                     A1 B0 G1 A6 B0 F6 A0      1.00      140 .
5 FASTEN BARCLAMP TO ELBOW AT WORKTABLE 3 WRIST-CRANKS
  USING HAND F 6
                                     A1 B0 G1 A1 B0 F1 F6 A0 B0 P0 A0      6.00      600.
6 FASTEN SHETTINGTOOL TO SHEETMETAL AT WORKTABLE 1 STRIKE
  USING HAMMER AND ASIDE F 25
                                     A1 B0 G1 A1 B0 P0 F3 A1 B0 F1 A0      25.00      2000.
7 FASTEN SHEETMETAL TO SHEETMETAL AT WOKRTABLE 3 STRIKES
  USING HAMMER AND ASIDE PF 25 ( 4 5 6 7 )
                                     A1 B0 G1 (A1 B0 P0 F6 )A1 B0 F1 A0 (25) 1.00      1790 .
8 LOOSEN BARCLAMP FROM SHEETMETAL AT WORKTABLE 3
  WRIST-CRANKS USING HAND
                                     A1 B0 G1 B0 P1 L6 A0 B0 P0 A0      1.00      100.
9 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
  USING HAMMER AND ASIDE PF 18 ( 4 5 6 7 )
                                     A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (18) 1.00      5980.
10 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
                                     A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0      1.00      100.

                                     TOTAL TMU      13520.
```

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ? *41,290 MB25 MN.*
10,140 MB.6 MN. } 16 MN
17,100 MB.10 MN. }
- 700 MB.41 SEC
67,830 MB. 41 MN.

SHEET METAL SHAPE

13

12" x 20" x 36" LG OFFSET- OFFSET 8"

FAB. 93,510 56 MIN.

MARK OUT. 12,730 8 MIN.

TOTAL. 116,240 70 MIN.

File Description ? MARK OUT CHEEKS FOR OFFSET

Output to line-printer <Y or N> ? N

(39, 1)
 FIT .W11 OFFSET.M60
 MARK OUT CHEEKS FOR OFFSET WITH AWL AT SHEETMETAL SHOP
 PER OFFSET OFG: 4 10-MAY-83

NASSCO SHEETMETAL SHAPE 13
 * 18 GAUGE GALV. SHEETMETAL
 * 12'X20'X36'L OFFSET
 * OFFSET 8'
 * MARK OUT CHEEKS FOR OFFSET WITH TEMPLATE
 FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
 WORKTABLE F 2

	A1	B0	G1	A1	B0	P6	A0	2.00	180.
2	POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 6								

	A1	B0	G1	A6	B0	P6	A0	6.00	840.
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7								

	A1	B0	G1	(K1	E0	P1	R16	)A1	B0	P1	A0	(6)	1.00	1120.
4	POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F 8													

	A1	B0	G1	A1	B0	P6	A0	8.00	720.
5	FASTEN CPUNCH TO SHEETMETAL A1 WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)								

	A1	B0	G1	(A1	B0	P0	F3	)A1	B0	P1	A0	(8)	1.00	360.
6	REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 6													

	A1	B0	G1	A6	B0	P3	A0	6.00	660.
7	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE F 2								

	A1	B0	G1	A1	B0	P3	A0	2.00	120.
8	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)								

	A1	E0	G1	(A1	B0	P1	R16	)A1	B0	P1	A0	(6)	1.00	1120.
9	HARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 44 (4 5 6 7)													

	A1	E0	G1	(A1	IB0	P1	R3	)A1	B0	P1	A0	(44)	1.00	2240.
10	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7													

	A1	B0	G1	(A1	E0	P1	R3)A1	B0	P1	A0	(52)	1.00	2640.
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	TOTAL TMU												10000.
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? MARK OUT WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

(39, 1)

FIT *W11 OFFSET.M61
MARK OUT WRAPPERS FOR OFFSET WITH AWL AT SHEETMETAL SHOP
PER OFFSET OFG: 4 10-MAY-83
NASSCO SHEETMETAL SHAPE 13
* 18 GAUGE GALV. SHEETMETAL
* 12'X20'X36'L OFFSET
* OFFSET 8'

* MARK OUT WRAPPERS WITHOUT TEMPLATES
FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 6 (4 5 6 7) A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (6)	1.00	2080.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (4)	1.00	240.
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE E 4 A1 B0 G1 A1 B0 P6 A0	4.00	360.
4	MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (4)	1.00	240.
	5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8 A1 B0 G1 A1 B0 P6 A0	8.00	720.
6	MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)) A1 B0 G1 (A1 B0 P1 R6)A1 B0 P1 A0 (8)	1.00	680.
7	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 11 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (11)	1.00	2020 .
8	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 44 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (44)	1.00	2240.
9	MARK IDENTIFICATION ON SHEETMETAL A-f WORKTABLE 1 DIGIT USING BALCKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	2640.
10	PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 3 STEPS A1 B0 G1 A6 B0 P3 A0	1.00	110.
11	MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR A1 R0 G1 A67 B0 P1 A0	1.00	700.
	TOTAL TMU		12030.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help) ?

700 + 12030 = 12730

File Description ? SHEAR SHEETMETAL FOR OFFSET

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 OFFSET.M62
SHEAR SHEETMETAL FOR OFFSET WITH SMALL 8FT. SHEAR AT SHEETMETAL
SHOP
PER OFFSET OFG: 4 10-MAY-83
NASSCOS SHEETMETAL SHAPE 13
* 18 GAUGE GALV. SHEETMETAL
* 12'X20'X36'L OFFSET
* OFFSET 8'L
FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL2 FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F--		
	A1 B0 G1 A6 B0 P6 A0	1.00	140. f ^{-z}
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2		
	A1 B0 G1 H1 X6 IO A0	2.00	180.
3	POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR F 16		
	A1 E0 G1 A1 B0 P6 A0	16.00	1440.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 16		
	A1 B0 G1 M1 X6 IO A0	16.00	1440.
5	REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 10 STEPS F 2		
	A1 B0 G1 A16 B0 P3 A0	2.00	420.
6	MOUE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE,		
	A1 B0 G1 A67 B3 P1 A0	1.00	7 3 0 .
TOTAL TMU			4350 .

Type D, EM, CT, EW, EX, L, LD, LS M, T, W <or H for help?> ?

17080

File Description ? SHEAR RADIUS ON CHEEKS FOR OFFSET

Output to line-printer <Y or N> ? N

```
( 39, 1)
FIT .W11                                OFFSET.M63
SHEAR RADIUS ON CHEEKS FOR OFFSET WITH UNI-SHEAR-AT SHEETMETAL
SHOP
PER OFFSET                                OFG: 4 10-MAY-83
NASSCO SHEETMETAL SHAPE 13
* 18 GAUGE GALV. SHEETMETAL
* 12'X20'X36'L OFFSET / OFFSET 8'
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0                2.00      220.
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
      A96 E0 G1 A96 B3 P1 A0                1.00     1970.
3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 12
      A1 R0 G1 M6 X173I0 A0                12.00     21720.
4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING
  SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
      A1 B0 G1 (61 B0 P3 C3 )A1 B0 P1 A0 (16) 1.00     1160.
5 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3
  STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4
  5 6 7 )
      A1 B0 G1 (A1 B0 F0 F6 )A1 B0 P1 A0 (16) 1.00     1160.
6 GRIP AND TWIST SHEETMETAL [CHEEK EDGE CORNER] 1-TWIST
  USING VISEGRIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7
  )
      A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (4) 1.00      240.
7 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
  WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0                2.00      220.
8 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAYOUT
      A1 B0 G1 A54 B0 P1 A0                1.00      570.

TOTAL TMU                                27260.
```

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

44,340

File Description ? FORM LAP ENDS ON CHEEKS AND WRAPPERS FOR OFFSET

Output to line-printer (Y or N) ? N

(39, 1)

FIT .W11

OFFSET.M64

FORM LAP ENDS ON CHEEKS AND WRAPPERS FOR OFFSET WITH
LAPOUT ROTARY MACHINE AT SHEETMETAL SHOP

PER OFFSET

OFG: 4 10-MAY-83

NASSCO SHEETMETAL SHAPE 13

* 18 GAUGE GALV. SHEETMETAL

* 12'X20'X36'L OFFSET / OFFSET 8'

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 4

A1	B0	G1	A6	E0	P3	A0	4.00	440.
----	----	----	----	----	----	----	------	------

2 PUSH LAPOUT-SWITCH PROCESS F 4

A1	B0	G1	M1	X16	I0	A0	4.00	760.
----	----	----	----	-----	----	----	------	------

3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 3 STEPS
F 4

A6	B0	G1	M1	X0	I3	A0	4.00	440.
----	----	----	----	----	----	----	------	------

4 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT.WITH
4 STEPS F 4

A1	B0	G1	A6	E0	P3	A0	4.00	440.
----	----	----	----	----	----	----	------	------

5 MOUE CART WITH SHEETMETAL2 FROM LAPOUT TO EDGER

A1	B0	G1	A16	B0	P1	A0	1.00	190.
----	----	----	-----	----	----	----	------	------

TOTAL TMU 2270.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

46,610

File Description ? FORM 90 DEGREE EDGE,ON CHEEKS FOR OFFSET

Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11

OFFSET.M65

FORM 90 'DEGREE EDGE ON CHEEKS FOR OFFSET WITH EDGER (ROLL FORMER)
AT SHEETMETAL SHOP

PER OFFSET

OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE 13

* 18 GAUGE GALV. SHEETMETAL

* 12'X20'X36'L OFFSET / OFFSET 8'

* START CHEEKS THROUGH EDGER MACHINE --

* WITH PREVIOUSLY TURNED UP EDGE --

* -- SEE [OFFSET.M63]

FITTER BEGINS AT EDGER

1 POSITION SHEETMETAL2 FROM CART AT EDGER TO EDGER WITH 4
STEPS F 2

A1	B0	G1	A6	B0	P6	A0	2.00	280.
----	----	----	----	----	----	----	------	------

2 PUSH EDGER-SWITCH PROCESS F 4

-A1	B0	G1	H1	X42	I0	A0	4.00	1800.
-----	----	----	----	-----	----	----	------	-------

3 PUSH AND GUIDE SHEETMETAL2 THROUGH EDGER WITH 3 STEPS F
4

A6	B0	G1	M1	X0	I3	A0	4.00	440 .
----	----	----	----	----	----	----	------	-------

4 REPLACE SHEETMETAL2 FROM EDGER TO CART AT EDGER WITH 4
STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

5 MOUE CART WITH SHEETMETAL2 FROM EDGER TO PITTSBURGH

A1	B0	G1	A16	B0	P1	A0	1.00	190,
----	----	----	-----	----	----	----	------	------

TOTAL TMU							2930.
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?-

49,540

File Description ? FORM PITTSBURGH LOCK ON WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

(39, 1)

FIT ,W11

OFFSET.M66

FORM PITTSBURGH LOCK ON WRAPPERS FOR OFFSET WITH
PITTSBURGH MACHINE AT SHEETMETAL SHOP

PER OFFSET

OFG: 4 10-MAY-83

NASSCO SHEETMETAL SHAPE 13

* 18 GAUGE GALV. SHEETMETAL

* 12'X20'X36'L OFFSET / OFFSET 8'

FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 2

A1	30	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

2 PUSH PITTSBURGH-BUTTON PROCESS F 4

A1	30	G1	M1	X32	I0	A0	4.00	1400.
----	----	----	----	-----	----	----	------	-------

3 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 3
STEPS F 4

A6	30	G1	M1	X0	I3	A0	4.00	440.
----	----	----	----	----	----	----	------	------

4 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

5 MOUE CART WITH SHEETMETAL2 FROM PITTSBURGH TO WORKTABLE

A1	B0	G1	A54	B3	P1	A0	1.00	600.
----	----	----	-----	----	----	----	------	------

TOTAL TMU 2880.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

52, 420

File Description ? POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 OFFSET.M67
POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET WITH HAMMER AT
SHEETMETAL SHOP
PER OFFSET OFG: 4 10-MAY-83

NASSCO SHEETMETAL SHAPE 13
* 18 GAUGE GALV. SHEETMETAL
* 12'X20'X36'L OFFSET / OFFSET 8'
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (8)	1.00	600.
3	POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	A1 B0 G1 A1 B0 F6 A0	4.00	360.
4	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (8)	1.00	360.
5	PLACE MASKING-TAPE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8	A1 B0 G1 A1 B0 P3 A0	8.00	480.
6	MOVE SHEETMETAL2 FROM WORKTABLE TO ROLLER	A1 B0 G1 A54 B0 P1 A0	1.00	570.
			TOTAL TMU	2590.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

5-5,010

File Description ? FORM RADIUS ON WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

OFFSET.M68

FORM RADIUS ON WRAPPERS FOR OFFSET WITH ROLLER (ROLL FORMER) AT
SHEETMETAL SHOP

PER OFFSET

OFG: 4 10-MAY-83

NASSCO SHEETMETAL SHAPE 13

* 18 GAUGE GALV. SHEETMETAL

* 12'X20'X36'L OFFSET / OFFSET 8'

* ROLL UP WRAPPERS WITH SPACERS IN --

* -- PITTSBURGH LOCKS TO KEEP --

* -- LOCKS FROM FLOATING

FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL FROM FITTER AT ROLLER TO ROLLER WITH
2 STEPS F 2

A1	B0	G1	A3	B0	P3	A0	2.00	160.
----	----	----	----	----	----	----	------	------

2 FASTEN BOLT [ROLL] TO SHEETMETAL2 AT ROLLER 3 SPINS
USING HAND F 6

A1	B0	G1	A1	B0	F1	F6	A0	B0	P0	A0	6.00	600.
----	----	----	----	----	----	----	----	----	----	----	------	------

3 PUSH ROLLER-BUTTON PROCESS F 16

A1	B0	G1	A1	B0	F1	F6	A0	B0	P0	A0	16.00	15840.
----	----	----	----	----	----	----	----	----	----	----	-------	--------

4 POSITION SHEETMETAL2 FROM ROLLER TO SHEETMETAL2 AT
ROLLER WITH 3 STEPS F 8

A1	B0	G1	A6	B0	P6	A0	8.00	1120.
----	----	----	----	----	----	----	------	-------

5 MOVE SHEETMETAL2 FROM ROLLER TO WORKTABLE

A1	B0	G1	A54	B3	P1	A0	1.00	600.
----	----	----	-----	----	----	----	------	------

TOTAL TMU 18320,

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help) ?

73,330

Please input file <OFFSET.M69> ?

File Description ? ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

```
( 39, 1)
FIT      .W11                      OFFSET.M69
      ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET WITH HAMMER AT SHEETMETAL
SHOP
PER OFFSET                      OFG: 4 10-MAY-83
      NASSCO SHEETMETAL SHAPE 13
      * 18 GAUGE GALV. SHEETMETAL
      * 12'X20'X36'L OFFSET / OFFSET 8'
      FITTER BEGINS AT WORKTABLE

1 REPLACE MASKING-TAPE FROM SHEETMETAL TO WORKTABLE AT
  WORKTABLE F 8
                                A1 B0 G1 A1 B0 P3 A0      8.00      480.
2 LOOSEN SHEETMETAL [SPACERS] FROM SHEETMETAL [WRAPPERS]
  AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND
  ASIDE PF 8 ( 4 5 6 7 )
                                A1 B0 G1 (A1 B0 P0 L3 )A1 B0 P1 A0 (8) 1.00      360.
3 MOVE BARCLAMP FROM TOOLROOM TO WORKTABLE
                                A96 B0 G1 A96 B3 P1 A0      1.00      1970.
4 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 2
                                A1 B0 G1 A1 B0 F6 A0      2.00      180.
5 POSITION BARCLAMP FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 8
                                A1 B0 G1 A1 B0 P6 A0      8.00      720.
6 FASTEN BARCLAMP TO SHEETMETAL AT WORKTABLE 3
  WRIST-TURNS USING HAND AND ASIDE PF 8 ( 4 5 6 7 )
                                A1 B0 G1 (A1 B0 P1 F6 )A1 B0 P1 A0 (8) 1.00      680.
7 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 32
                                A1 B0 G1 A1 B0 P6 A0      32.00      2880,
8 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 32 ( 4 5 6 7 )
                                A1 B0 G1 (A1 B0 P0 F6. )A1 B0 P1 A0 (32) 1.00      2280.
9 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 7 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7 )
                                A1 B0 G1 (A1 B0 P0 F16 )A1 B0 P1 A0 (24) 1.00      4120.
10 LOOSEN BARCLAMP FROM SHEETMETAL AT WORKTABLE 3
  WRIST-TURNS USING HAND F 8
                                A1 B0 G1 A1 B0 P1 L6 A0 B0 P0 A0      8.00      800.
11 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 19 ( 4 5 6 7 )
                                A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (19) 1.00      6310.
12 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
                                A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0.      1.00      100.
```

```
94210 FAB 56 MN. TOTAL TMU      20880.
10000 M.O 6 MN }
12730 M.O 8 MN } 14 MN.
- 700 M.V. 41 SEC
11,6240 Tot 70 MN.
```

SHEET METAL SHAPE

13

14" X 12" X 30" LG OFFSET - OFFSET 10"

FAB	35610	21 MIN
MARK OUT	19620	12 MIN.
WELD	53900	32 MIN.
TOTAL	109130	65 MIN

5 SH'S

S6242

NASSCO - ANALYSIS OF ERECTION UNITS

PREPARED 05/03/82 16:04 PAGE 3

PARAMETER ENDING 11-05-82

CON	ERECTION UNIT	HULL	DESCRIPTION	ENG STRUCTURE		LOFTING		CHASE FLAG	START DATE	DRAWING INFORMATION		
				SCHED	ACTUAL	SCHED	ACTUAL			TASK	DATE	SUB ASSY INSTN
G	V2-42000	418	(12 PCS) VENT DUCT 2ND DK FR 47-83 (Y1-42) ZONE 42	NREC	NREC	07/07/82	00/00/00	Z	07/29/82 08/27/82	418-501-042-	-	-
G	V2-63505	418	COMPLETE INSTALLATION OF V2-63 ZONE 63 (Y1-63)	NREC	NREC	NREC	NREC	Z	08/24/82 08/31/82	418-501-163-	-	-
G	V2-84004	418	(0 PCS) SPOOLS FOR CABLE DK FR ZONE 84 (Y1-84)	NREC	NREC	NREC	NREC	H	00/00/00 08/31/82	418-501-084-NW-	-	-
G	V2-71010	418	VENT DUCT 3RD DK FRS 27-29-1/2 ZONE 71 (Y1-71)	NREC	NREC	07/09/82	00/00/00	H	00/00/00 09/03/82	418-501-171-	-	-
G	V2-71011	418	VENT DUCT 3RD DK FRS 29-32 POR ZONE 71 (Y1-71)	NREC	NREC	07/16/82	00/00/00	H	00/00/00 09/03/82	418-501-171-	-	-
G	V2-83009	418	(-PCS) VENT (SPIRAL) CABLE D FR-33-39 P/S ZONE-83	NREC	NREC	07/09/82	00/00/00	H	00/00/00 09/03/82	418-501-083-	-	-
G	V2-71008	418	VENT DUCT 3RD DK FR 27-30 STBD ZONE 71 (Y1-71)	NREC	NREC	07/16/82	00/00/00	H	00/00/00 09/13/82	418-501-171-	-	-
G	V2-71009	418	VENT DUCT 3RD DK FRS 29-32 STB ZONE 71 (Y1-71)	NREC	NREC	07/16/82	00/00/00	H	00/00/00 09/13/82	418-501-171-	-	-
G	V2-83001	418	(12 PCS) VENT DUCT (LARGE) CAB KKKK ZONE 83	NREC	NREC	07/20/82	00/00/00	H	00/00/00 09/13/82	418-501-183-	-	-
G	V2-84005	418	(0 PCS) VENT DUCT AND TERMS CA FR 17-19 P/S ** H.U. M-124 ** ZONE 84 (Y1-84)	NREC	NREC	07/16/82	00/00/00	H	00/00/00 09/13/82	418-501-084-NW-	-	-
G	V2-82000	418	(0 PCS) SPOOLS CABLE DK FR 27- ZONE 82 (Y1-82)	NREC	NREC	NREC	NREC	H	00/00/00 09/15/82	418-501-182-	-	-
G	V2-63000	418	VLNT (SPOOLS) CABLE DECK FR 39 HI ZONE 83	NREC	NREC	NREC	NREC	H	00/00/00 09/15/82	418-501-183-	-	-

File Description ? MARK OUT CHEEKS OR OFFSET

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

OFFSET.M90

MARK OUT CHEEKS FOR RECTANGULAR OFFSET WITH AWL AT SHEETMETAL
SHOP

PER OFFSET

OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 13

* 11 GAUGE GALV. SHEETMETAL

* 14'X12'X30'L RECTANGULAR OFFSET

* OFFSET 10'

* MARK OUT CHEEKS WITH TEMPLATE

FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE WITH 5 STEPS F 2

A1 B0 G1 A10 B0 F6 A0 2.00 360.

2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT
WORKTABLE WITH 3 STEPS F 6

A1 B0 G1 A6 B0 F6 A0 6.00 840.

3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7

A1 B0 G1 (A1 B0 F1 R16)A1 B0 F1 A6 (6) 1.00 1120.

4 REPLACE WEIGHTS FROM TEMPLATES AT WORKTABLE TO
WORKTABLE WITH.3 STEPS F 6

A1 B0 G1 A6 B0 P3 A0 6.00 660.

5 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO
WORKTABLE WITH 5 STEPS F 2

A1 B0 G1 A10 B0 F3 A0 2.00 300.

6 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R3)A1 B0 F1 A0 (6) 1.00 340.

7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
ASIDE PF 44 (4 5 6 7)

A1 B0 G1 (A1 B0 F1 R3)A1 B0 F1 A0 (44) 1.00 2240.

8 MARK IDENTIFICAITON ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7

A1 B0 G1 (A1 B0 F1 R3)A1 B0 F1 A0 (52) 1.00 2640.

TOTAL TMU 8500.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? MARK OUT WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

39, 1)
 FIT .W11 OFFSET.M91
 MARK OUT WRAPPERS FOR RECTANGULAR OFFSET WITH AWL AT SHEETMETAL
 SHOP
 PER OFFSET OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 13
 * 11 GAUGE GALV. SHEETMETAL
 * 14'X12'X30'L RECTANGULAR OFFSET
 * OFFSET 10'
 * MARK OUT WRAPPERS WITHOUT TEMPLATE
 FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7) A1 B0 G1 (A1 B0 F1 M32)A1 B0 F1 A0 (4)	1.00	1400.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7) A1 B0 G1 (A1 B0 F1 R3)A1 B0 F1 A0 (6)	1.00	340.
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 3 A1 B0 G1 A3 B0 F6 A0	3.00	330.
4	MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 3 (4 5 6 7) A1 B0 G1 (A1 B0 F1 R3)A1 B0 F1 A0 (3)	1.00	190.
5	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 8 A1 B0 G1 A6 B0 F6 A0	8.00	1120.
6	MARK SHEETMETAL FROM CORNER TEMPLATES AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7) A1 B0 G1 (A1 B0 F1 R6)A1 B0 F1 A0 (8)	1.00	680.
7	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R16)A1 B0 F1 A0 (6)	1.00	1120.
8	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 44 (4 5 6 7) A1 B0 G1 (A1 B0 F1 R3)A1 B0 F1 A0 (44)	1.00	2240.
9	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7) A1 B0 G1 (A1 B0 F1 R3)A1 B0 P1 A0 (52)	1.00	2640.
10	PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2 A1 B0 G1 A6 B0 P3 A0	2.00	220.
11	MOVE CART FROM WORKTABLE TO 14FT SHEAR A1 B0 G1 A81 B0 F1 A0	1.00	840.
TOTAL TMU			11120.

File Description ? SHEAR CHEEKS AND WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

OFFSET.M92

SHEAR CHEEKS AND WRAPPERS FOR RECTANGULAR OFFSET WITH 14FT. SHEAR
AT SHEETMETAL SHOP
PER OFFSET

OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 13

* 11 GAUGE GALV. SHEETMETAL

* 14'X12'X30'L RECTANGULAR OFFSET

* OFFSET 10'

FITTER BEGINS AT 14FT.SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO
14FT.SHEAR WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 2

A1 B0 G1 M1 X3 I0 A0 2.00 120.

3 POSITION SHEETMETAL2 FROM 14FT.SHEAR TO 14FT.SHEAR WITH
4 STEPS F 16

A1 B0 G1 A6 B0 P6 A0 16.00 2240.

4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 16

A1 B0 G1 M1 X3 I0 A0 16.00 960.

5 REPLACE SHEETMETAL2 FROM 14FT.SHEAR TO CART AT
14FT.SHEAR WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

6 MOUE CART FROM 14FT.SHEAR TO WORKTABLE

A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 4690.

Type [1,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT RADIUSSES AND CORNERS FOR OFFSET

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

OFFSET.M93

CUT RADIUSSES AND CORNERS FOR RECTANGULAR OFFSET WITH SABER-SAW A1

SHEETMETAL SHOP

PER OFFSET

OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 13

* 11 GAUGE GALV. SHEETMETAL

* 14'X12'X30'L RECTANGULAR OFFSET

* OFFSET 10'

* CUT RADIUSSES & CORNERS ON CHEEKS

* CUT CORNERS ON WRAPPERS

FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL2 FROM CART AT WORKTABLE TO
WORKTABLE WITH 4 STEPS F 2

A1. B G1 A6 B0 P6 A0 2.00 200.

2 MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE

A96 B0 G1 A96 B3 P1 A0 1.00 1970.

3 FASTEN NUT [SAW-BLADE] TO SABER-SAW AT WORKTABLE 3

WRIST-TURNS USING ALLEN WRENCH AT WORKTABLE AND ASIDE

P F 3 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 F6)A1 B0 P1 A0 (3) 1.00 340.

4 OPERATE SABER-SAW AT WORKTABLE PROCESS F 12

A1 B0 G1 M6 X67 IO A0 12.00 9000.

5 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

6 MOUE CART FROM WORKTABLE TO ROLLER

A1 B0 G1 A54 B0 P1 A0 1.00 370.

TOTAL TMU 12380.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

. 17070

File Description ? FORM,RADIUSES ON WRAPPERS FOR OFFSET

Output to line-Printer <Y or N> ? N

(3 9 , 1)

FIT . W11

OFFSET.M94

FORM RADIUSES ON WRAPPERS FOR RECTANGULAR OFFSET WITH
ROLLER (ROLL FORMER) AT SHEETMETAL SHOP

PER OFFSET

OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 13

* 11 GAUGE GAL SHEETMETAL

* 14'X12"X30'L RECTANGULAR OFFSET

* OFFSET 10'

* ROLL UP WRAPPER RADIUSES AND CHECK--

--THEM WITH RADIUSES ON CHEEKS

* COMPLETE IN WELD BOOTH AREA

* SEE MWELD.SEE OFFSET.M95

FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL2 FROM CART AT ROLLER TO ROLLER WITH 4
STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT ROLLER 3

WRIST-TURNS USING HAND WITH 2 STEPS F 6

A1	B0	G1	A1	B0	P1	F6	A0	B0	P0	A0	6.00	600.
----	----	----	----	----	----	----	----	----	----	----	------	------

3 PUSH ROLLER-BUTTON PROCESS F 16

A1	B0	G1	M1	X96	I0	A0	16.00	15840.
----	----	----	----	-----	----	----	-------	--------

4 POSITION SHEETMETAL2 FROM ROLLER TO SHEETMETAL2 AT
ROLLER WITH 3 STEPS F 8

A1	B0	G1	A6	B0	F6	A0	8.00	1120.
----	----	----	----	----	----	----	------	-------

5 REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH
2 STEFS F 2

A1	B0	G1	A3	B0	P3	A0	2.00	160.
----	----	----	----	----	----	----	------	------

6 MOUE CART FROM ROLLER TO WORKTABLE

A1	B0	G1	A54	B3	P1	A0	1.00	600.
----	----	----	-----	----	----	----	------	------

TOTAL	TMU	18540.
-------	-----	--------

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

3 5 , 6 1 0

OFFSET .1475

ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF

4 0 (4 5 6 7) ' ,

	A1	B0	G1	(A1	B0	P1	C10)	A1	B1	P1	A0	(40)	1.00	4840.
15	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2													
	A1	B0	G1	A6	B0	P3	A0						2.00	220.
16	FITTER MOUE CART FROM WELDTABLE TO WORKTABLE													
	A1	B0	G1	A131B0	P1	A0							1.00	1340,

TOTAL TMU 53900.

File Description ? WELD RECTANGULAR OFFSET

Output to line-printer <Y or N> ?

SHEET METAL SHAPE # 13

<u>FAB</u>	<u>109700</u>	<u>66 MIN.</u>
<u>MARK OUT</u>	<u>21890</u>	<u>13 MIN.</u>
<u>TOTAL</u>	<u>131590</u>	<u>78 MIN</u>

10 SHIS

File Description ? MARK OUT CHEEKS FOR OFFSET

Outrut to line-Printer <Y or N> ? N

```
( 3 9 , 1 )
FIT .W11                                OFFSET.M80
MARK OUT CHEEKS FOR OFFSET WITH AWL AT SHEETMETAL SHOP
PER OFFSET                                OFG: 4 11-MAY-83
NASSCO SHEETMETAL SHAPE 13
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X70'L OFFSET / OFFSET 20'
* MARK OUT CHEEKS FOR OFFSET WITH TEMPLATE
FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 3 STEPS F 2
      A1 B0 G1 A6 B0 P6 A0                2.00      280.
2 POSITION WEIGHTS FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 4 STEPS F 8
      A1 B0 G1 A6 B0 P6 A0                8.00      1120.
3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7
      A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00      1120.
4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE
  WITH 3 STEPS F 8
      A1 B0 G1 A6 B0 P6 A0                8.00      1120.
5 FASTEN CPUNCH TO SHEETMETAL AT WOKRTABLE 1 STRIKE USING
  HAMMER AND ASIDE PF 8 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8) 1.00      360.
6 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE
  WITH 3 STEPS F 8
      A1 B0 G1 A6 B0 P3 A0                8.00      880.
7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO
  WORKTABLE F 2
      A1 B0 G1 A1 B0 P3 A0                2 .00      120;
8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
  USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 F1 R16 )A1 B0 P1 A0 (6) 1.00      1120.
9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
  ASIDE PF 44 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (44) 1.00      2240.
10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7)
      A1 B0 G1 (A1 B1 P1 R3 )A1 B0 P1 A0 (52) 1.00      2640.

TOTAL TMU                                11000.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR OFFSET

Output to line-printer <Y or N> ? N

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( 39 , 1 )
FIT      .W11                                OFFSET.M82
SHEAR SHEETMETAL FOR OFFSET WITH SMALL 8FT. SHEAR AT SHEETMETAL
SHOP
PER OFFSET                                OFG:4   11-MAY-83
    NASSCO SHEETMETAL SHAPE 13
    * 22 GAUGE GALV. SHEETMETAL
    * 8'X8'X70'L OFFSET / OFFSET 20'
    * SHEAR 1'SPACER STRIPS FOR PITTSBURGH --
    * -- LOCKS WHEN ROLL FORMING RADIUS
    FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL2 FROM CART AT SMALLSHEAR TO
  SMALLSHEAR WITH 4 STEPS F 2
      A1,  B0  G1  A6  B0  P6  A0          2.00      280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2
      A1  B0  G1  M1  X6  I0  A0          2.00      180.
3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH
  2 STEPS F 20
      A1  B0  G1  A3  B0  P6  A0          20.00     2200.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 20
      A1  B0  G1  M1  X6  I0  A0          20.00     1800 .
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
  SMALLSHEAR WITH. 10 STEPS F 2
      A1  B0  G1  A16  E0  P3  A0          2.00I      420.
6 MOUE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE
      I      A1  B0  G1  A67  B3  P1  A0          1.00      730.

                                TOTAL TMU          5610.
```

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR CHEETK RADIUS FOR OFFSET

Oput to line-printer <Y or N> ? N

(39, 1) .
FIT .Wll OFFSET.M83
SHEAR CHEEK RADIUS FOR OFFSET WITH UNI-SHEAR AT SHEETMETAL SHOP
PER OFFSET OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE 13
* 22 GAUGE GLAV. SHEETMETAL
* 8'X8'X70' L OFFSET / OFFSET 20'
* BEND UP ONE CORNER ON CHEEK EDGE WITH--
* --VISEGRIPS FOR EASY ENTRY IN EDGE--
* --ROLLING MACHINE
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE UNISHEAR AT WORKTABLE PROCESS F 23	A1 B0 G1 M6 X173I0 A0	23.00	41630.
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C3)A1 B0 P1 A0 (16)	1.00	1160.
5	FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (16)	1.00	1160.
6	GRIP AND TWIST SHEETMETAL [CHEEK CORNER EDGE] AT WORKTABLE 1 TWIST USING VISEGRIPS AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (2)	1.00	140.
7	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
8	MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT	A1 B0 G1 A54 B0 P1 A0	1.00	570.
TOTAL TMU			47070	.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

52,680

File Description ? FORM LAP ENDS FOR OFFSET

Output to line-printer <Y or N> ? N

(3 9 , 1)

FIT .W11 OFFSET.M84

FORM LAP ENDS FOR OFFSET WITH LAPOUT (ROTARY MACHINE) AT
SHEETMETAL SHOP

ER OFFSET OFG:4 11-MAY-83

NASSCO SHEETMETAL SHAPE 13
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X70' L OFFSET / OFFSET 20'
* FORM LAP END ON ROTARY MACHINE
FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 4

A1	B0	G1	A6	B0	P3	A0	4.00	440.
----	----	----	----	----	----	----	------	------

2 PUSH LAPOUT-SWITCH PROCESS F 4

A1	B0	G1	M1	X16	I0	A0	4.00	760.
----	----	----	----	-----	----	----	------	------

3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 3 STEPS
F 4

A6	B0	G1	M1	X0	13	A0	4.00	440.
----	----	----	----	----	----	----	------	------

4 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH
4 STEPS F 4

A1	B0	G1	A6	B0	P3	A0	4.00	440.
----	----	----	----	----	----	----	------	------

5 MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO EDGER

A1	B0	G1	A16	B0	P1	A0	1.00	190.
----	----	----	-----	----	----	----	------	------

TOTAL TMU							2270.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

54,950

File Description ? FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET

Output to line-pinter <Y or N> ? N

(39, 1)
FIT .W11 OFFSET.M85
FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET WITH EDGER (FLANGER) AT
SHEETMETAL SHOP
PER OFFSET OFG:4 11-MAY-83

NASSCO SHEETMETAL SHAPE 13
* 22 GAUGE GALV. SHEETMETAL
* S'X8'X70' L OFFSET / OFFSET 20'
* BEGIN EDGE IN MACHINE WITH PREVIOUSLY--
* --TURNED UP EDGE
* TURN UP WITH VISEGRIPS AT WORKBENCH
FITTER BEGINS AT EDGER

1	POSITION SHEETMETAL2 FROM CART AT EDGER WITH 4		
	STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH EDGER-SWITCH PROCESS F 4		
	A1 B0 G1 M1 X42 IO A0	4.00	1800.
3	PUSH AND GUIDE SHEETMETAL2 THROUGH EDGER WITH 3 STEPS F		
	4		
	A6 B0 G1 M1 X0 I3 A0	4.00	440.
4	REPLACE SHEETMETAL2 FROM EDGER TO CART AT EDGER WITH 4		
	STEPS F 4		
	A1 B0 G1 A6 B0 P3 A0	4.00	440.
5	MOUE CART WITH SHEETMETAL2 FROM EDGER TO PITTSBURGH		
	A1 B0 G1 A16 B0 P1 A0	1.00	190.
		TOTAL TMU	3150.

Type D,EM,CT,EW,EX,L,LD,,LS,M,T,W <or H for help> ?

58,100

File Description ? FORM PITTSBURGH LOCKS FOR OFFSET

Output to line-printer (Y or N) ? N

(39, 1)

FIT .W11 OFFSET.M86

FORM PITTSBURGH LOCKS FOR OFFSET WITH PITTSBURGH MACHINE AT
SHEETMETAL SHOP

PER OFFSET

OFG:4 08-JUL-83

NASSCO SHEETMETAL SHAPE 13

* 22 GAUGE GALV. SHEETMETAL

* 8'X8'X70' L OFFSET / OFFSET 20'

FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 PUSH PITTSBURGH-BUTTON PROCESS F 4

A1 B0 G1 M1 X32 I0 A0 4.00 1400.

3 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 3
STEPS F 4

A6 B0 G1 M1 X0 13 A0 4.00 440.

4 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

5 MOVE CART WITH SHEETMETAL2 FROM PITTSBURGH TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 2880.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

60,980

File Description ? POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET
Output to line-Printer <Y or N> ? N

(3 9 , 1)
FIT .W11 OFFSET.M87
POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET WITH HAMMER AT
SHEETMETAL SHOP
PER OFFSET OFG:4 11-MAY-83

NASSCO SHEETMETAL SHAPE 13
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X70' L OFFSET / OFFSET 20'
* PLACE PREVIOUSLY CUT SPACERS IN--
* --PITTSBURGH LOCK TO PROTECT LOCKS--
* --WHILE ROLLING
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F6)A1 B0 P1 A0 (8)	1.00	600.
3	POSITION SHEETMETAL [SPACERS] FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8	A1 B0 G1 A1 B0 P6 A0	8.00	720,
4	FASTEN SHEETMETAL [SPACERS] TO SHEETMETAL [PITTSBURGH LOCKS3 AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (12)	1.00	520.
5	PLACE MASKING-TAPE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 8	A1 B0 G1 A3 B0 P3 A0	8.00	640.
6	MOVE SHEETMETAL2 FROM WORKTABLE TO ROLLER	A1 B0 G1 A54 B0 P1 A0	1.00	970.
		TOTAL TMU		3270.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

64,250

File Description ? FORM RADIUS ON WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

(3 9 , 1)
FIT .W11 OFFSET.M88
FORM RADIUS ON WRAPPERS FOR OFFSET WITH ROLLER (ROLL FORMER) AT
SHEETMETAL SHOP
PER OFFSET OFG:4 08-JUL-83
NASSCO SHEETMETAL SHAPE 13
* 22 GAUGE GALV. SHEETMETAL
* 8'X8'X70' L OFFSET / OFFSET 20'
FITTER BEGINS AT ROLLER

1	PLACE SHEETMETAL2 FROM FITTER AT ROLLER TO ROLLER WITH		
	2 STEPS F 2		
	A1 B0 G1 A3 B0 P3 A0	2.00	160.
2	FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT ROLLER WITH 3		
	SPINS USING HAND WITH 2 STEPS F 6		
	A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0	6.00	600.
3	PUSH ROLLER-BUTTON PROCESS F 16		
	A1 B0 G1 M1 X96 I0 A0	16.00	15840.
4	POSITION SHEETMETAL2 FROM ROLLER TO SHEETMETAL2 AT		
	ROLLER WITH 3 STEPS F 8		
	A1 B0 G1 A6 B0 P6 A0	8.00	1120,
5	REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH		
	2 STEPS F 2		
	A1 B0 G1 A3 B0 P3 A0	2.00	160.
6	MOVE CART WITH SHEETMETAL2 FROM ROLLER TO WORKTABLE		
	A1 B0 G1 A54 B3 P1 A0	1.00	600.
	TOTAL TMU		18480.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

82,730

File Description ? ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

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( 3 9 , 1 )
FIT .W11                                OFFSET.M89
ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET WITH HAMMER AT SHEETMETAL
SHOP
PER OFFSET                                OFG:4    11-MAY-83
    NASSCO SHEETMETAL SHAPE 13
    * 22 GAUGE GALV. SHEETMETAL
    * 8'X8'X70'L OFFSET / OFFSET 20'
    * USE BAR CLAMP TO HOLD CHEEKS AND--
    * --WRAPPERS TOGETHER WHILE SECURING--
    * --PITTSBURGH LOCKS
    FITTER BEGINS AT WORKTABLE

1 REPLACE MASKING-TAPE FROM SHEETMETAL AT WORKTABLE TO
  WORKTABLE WITH 2 STEPS F 8
      A1 B0 G1 A3 B0 P3 A0      8.00      640.
2 LOOSEN SHEETMETAL [SPACERS] FROM SHEETMETAL [PITTSBURGH
  LOCKS] AT WORKTABLE 2 STRIKES USING HAMMER AT
  WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P0 L6 )A1 B0 P1 A0 (16)  1.00      1160.
3 MOVE BARCLAMP2 FROM TOOLROOM TO WORKTABLE
      A96 B0 G1 A96 B3 P1 A0      1.00      1970.
4 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 2 STEPS F 2
      A1 B0 G1 A3 B0 P6 A0      3.00      220.
5 POSITION BARCLAMP FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 12
      A1 B0 G1 A1 B0 P6 A0      12.00     1080.
6 FASTEN BARCLAMP TO SHEETMETAL AT WORKTABLE 3
  WRIST-TURNS USING HAND F 8
      A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0      8.00      800.
7 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 38
      A1 B0 G1 A1 B0 P6 A0      38.00     3420.
8 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 32 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (32)  1.00     2280.
9 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P0 F10 )A1 B0 P1 A0 (24)  1.00     2680.
10 LOOSEN BARCLAMP FROM SHEETMETAL AT WORKTABLE 3
  WRIST-TURNS USING HAND F 8
      A1 B0 G1 A1 B0 P1 L6 A0 B0 P0 A0      8.00      800.
11 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
  USING HAMMER AT WORKTABLE AND ASIDE PF 36 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (36)  1.00     11920.

                                TOTAL TMU      26970.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

SHEET METAL SHAPE

13

20" X 13" X 55" LG. OFFSET - OFFSET 12"

<u>FAB.</u>	<u>112850</u>	<u>68 MIN</u>
<u>MARK OUT</u>	<u>27970</u>	<u>13 MIN</u>
<u>TOTAL</u>	<u>139820</u>	<u>81 MIN</u>

Please input file <OFFSET,M40> ?

File Description ? MARK OUT CHEEKS FOR OFFSET

Output to line-printer <Y or N> ? N

(3 9 , 3)

FIT .W09 OFFSET.M40
MARK OUT CHEEKS FOR OFFSET WITH AWL AT SHEETMETAL SHOP
PER OFFSET OFG:4 08-APR-83

NASSCO SHEETMETAL SHAPE #13
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7595
* 18 GAUGE GALV.SHEETMETAL
* 20'X13' X 55'L OFFSET, OFFSET 12'
* MARK OUT CHEEKS USING TEMPLATE
FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2	A1 B0 G1 A6 B0 P6 A0	2 . 0 0	289.
2	POSITION 5 WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 10	A1 B0 G1 A6 B0 P6 A0	10.00	1400.
3	MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (8)	1.00	1480.
4	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE .WITH 2 STEPS F 22	A1 B0 G1 A3 B0 P6 A0	22.00	2420.
5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 22 (4 5 6 7)	A1 B0 G1 (A1 B0 P0 F3)A1 B1 P1 A0 (22)	1.00	920.
6	REPLACE 5 WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 10	A1 B0 G1 A6 B0 P3 A0	10.00	1100.
7	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 2 STEPS F 2	A1 B0 G1 A3 B0 P3 A0	2.00	160.
8	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 8 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (8)	1.00	1480.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND- ASIDE PF 36 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (36)	1.00	1840.
10	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 50 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (507)	1.00	2540.
		TOTAL TMU		13620.

Please input file <OFFSET.M41) ?

File Description ? MARK OUT WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

(3 9 , 3)

FIT .w09 OFFSET.M41
MARK OUT WRAPPERS FOR OFFSET WITH AWL AT SHEETMETAL SHOP
PER OFFSET OFG:4 11-APR-83

NASSCO SHEETMETAL SHAPE #13

* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7595
* 18 GAUGE GALV. SHEETMETAL
* 20'X13'X55'L OFFSET? OFFSET 12'
* MARK OUT WRAPPERS WITHOUT TEMPLATES

FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE F 4		
	A1 B0 G1 A1 B0 P1 M32 A1 B0 P1 A0	4.00	1520.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 10 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (10)	1.00	540.
	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTAF 5		
	A1 B0 G1 A1 B0 P6 A0	1.00	90.
4	MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 5 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (5)	1.00	940.
5	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8		
	A1 B0 G1 A1 B0 P6 A0	8.00	720.
6	MARK SHEETMETAL FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AND ASIDE PF 8 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R6)A1 B0 P1 A0 (8)	1.00	680.
7	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4)	1.00	760.
8	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 37 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (37)	1.00	1890.
9	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 5 (4 5 6 7)		
	A1 B0 G1 (A1 B1 P1 R3)A1 B0 P1 A0 (5)	1.00	290.
10	PLACE SHEETMTAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
11	MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR		
	A1 B0 G1 A67 B0 P1 A0	1.00	700.

TOTAL TMU

8350.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Please input file <OFFSET.M42> ?

File Description ? SHEAR SHEETMETAL FOR OFFSET

Output to line-printer <Y or N> ? N

(3 9 , 3)

FIT .W09 OFFSET.M42
SHEAR SHEETMETAL FOR OFFSET WITH SMALL 8 FT. SHEAR AT SHEETMETAL
SHOP
PER OFFSET OFG: 4 08-APR-83

NASSCO SHEETMETAL SHAPE #13
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7595
* 18 GAUGE GALV. SHEETMETAL
* 20'X13'X55'L OFFSET, OFFSET 12'
* 2 FILTERS REQUIRED
* SHEAR SPACER STRIPS
FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL2 FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 4	A1 B0 G1 A6 B0 P6 A0	4.00	560.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS	A1 B0 G1 M1 X6 IO A0	1.00	90.
3	POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH 3 STEPS F 12	A1 B0 G1 A6 B0 P6 A0	12.00	1680.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 12	A1 B0 G1 M1 X6 IO A0	12.00	1080.
5	REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 10 STEPS F 2	A1 B0 G1 A16 B0 P3 A0	2.00	420.
6	MOUE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE	A1 B0 G1 A67 B3 P1 A0	1.00	730.
			TOTAL TMU	4560.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR RADIUS ON CHEEKS FOR OFFSET

output to line-printer <Y or N> ? N

(39, 3)
 FIT .W09 OFFSET.M43
 SHEAR RADIUS ON CHEEKS FOR OFFSET WITH UNI-SHEAR AT SHEETMETAL
 SHOP
 PER OFFSET OFG: 4 21-JUL-83

NASSCO SHEETMETAL SHAPE 13
 * HULL 414
 * DRAWING 501-062
 * V2-1098
 * V6-7595
 * 18 GAUGE GALV. SHEETMETAL
 * 20'X13'X55'L OFFSET, OFFSET 12'
 * BEND UP EDGE-CORNERS FOR EDGE
 FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	MOUE UNISHEAR2 FROM TOOLROOM TO WORKTABLE	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE UNISHEAR PROCESS F 17	A1 B0 G1 M6 X17310 A0	17.00	30770.
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C3)A1 B0 P1 A0 (16)	1.00	1160.
5	FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AND ASIDE PF 16 (4 5 6 7)	A1 B0 G1 (A1 B0 PO F6)A1 B0 P1 A0 (16)	1.00	1160.
6	GRIP AND TWIST EDGE CORNERS ON SHEETMETAL AT WORKTABLE 1 TWIST USING VISEGRIPS AND ASIDE PF 4 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (4)	1.00	240.
7	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
8	MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT	A1 B0 G1 A54 B0 P1 A0	1.00	570.

TOTAL TMU 36310.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

40,870

T

Please input file <OFFSET.M44) ?

File Description ? FORM LAP ENDS FOR OFFSET

Output to line-Printer <Y or N> ? N

 $(39, 3)$

FIT .W09

OFFSET.M44

FORM LAP ENDS FOR OFFSET WITH LAPOUT MACHINE AT SHEETMETAL SHOP

PER OFFSET

OFG: 4 08-APR-83

NASSCO SHEETMETAL SHAPE #13

* HULL 414

* DRAWING 501-062

* V2-1098

* V6-7595

*18 GAUGE GALV. SHEETMETAL

```
* 20'X13'X55'L OFFSET, OFFSET 12'
```

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4
STEPS F 4

A1 B0 G1 A6 B0 P3 A0

4.00

440.

2 OPERATE LAPOUT-SWITCH PROCESS F 4

A1 B0 G1 M6 X16 IO A0

4.00

960.

```
3 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH
  4 STEPS F 4
```

A1 B0 G1 A6 B0 P3 A0

4.00

440.

```
4  MOVE  CART  WITH  SHEETMETAL2  FROM  LAPOUT  TO  EDGER
```

A1 B0 G1 A16 B0 P1 A0

1 . 0 0

190.

TOTAL TMU

2030.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

42,900

Please input file <OFFSET.M45> ?

File Description ? FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET

Output to line-printer <Y or N> ? N

(3 9 , 3)
FIT .W09 OFFSET.M45
FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET WITH EDGER MACHINE AT
SHEETMETAL SHOP
PER OFFSET OFG: 4 08-APR-83

NASSCO SHEETMETAL SHAPE #13
* HULL 414
* DRAWING 501-062
* V2-1098
*(V6-7595
* 18 GAUGE GALV. SHEETMETAL
* 20'X13'L OFFSET, OFFSET 12'
* USE TURNED UP EDGE TO START METAL--
* THROUGH EDGER
FITTER BEGINS AT EDGER

1	PLACE SHEETMETAL2 FROM CART AT EDGER TO EDGER WITH 4		
	STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	PUSH EDGER-SWITCH PROCESS F 4		
	A1 B0 G1 M1 X42 IO A0	4.00	1800.
3	PUSH AND GUIDE SHEETMETAL2 THROUGH EDGER WITH 4 STEPS F		
	4		
	A6 B0 G1 M1 X0 I3 A0	4.00	440.
4	REPLACE SHEETMETAL2 FROM EDGER TO CART AT EDGER WITH 4		
	STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
5	MOUE CART WITH SHEETMETAL2 FROM EDGER TO PITTSBURGH		
	A1 B0 G1 A16 B0 P1 A0	1.00	190.
		TOTAL TMU	2870.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

45.770

T

Please input file <OFFSET.M46> ?

File Description ? FORM PITTSBURGH LOCK FOR OFFSET

OutPut to line-printer <Y or N> ? N

(3 9 , 3)
FIT .W09 OFFSET.M46
FORM PITTSBURGH LOCK FOR OFFSET WITH PITTSBURGH MACHINE AT
SHEETMETAL SHOP
PER OFFSET OFG: 4 08-APR-83
NASSCO SHEETMETAL SHAPE #13
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7595
* 18 GAUGE GALV. SHEETMETAL
* 20'X13'X55'L OFFSET, OFFSET 12'
* USE 16-18 GAUGE PITTSBURGH MACHINE
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH
WITH 4 STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

2 PUSH PITTSBURGH-BUTTON PROCESS F 4

A1	B0	G1	M1	'X32	IO	A0	4.00	1400.
----	----	----	----	------	----	----	------	-------

3 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 4
STEPS F 4

A6	B0	G1	M1	X0	I3	A0	4.00	440.
----	----	----	----	----	----	----	------	------

4 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT
PITTSBURGH WITH 4 STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	------

5 MOUE CART WITH SHEETMETAL2 FROM PITTSBURGH TO WORKTABLE

A1	B0	G1	A54	B3	P1	A0	1.00	600.
----	----	----	-----	----	----	----	------	------

TOTAL	TMU	2880.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

48,650

T

Please input file <OFFSET.M47> ?

File Description ? POSITION SPACERS FOR OFFSET

Output to line-printer <Y or N> ? N

(3 9 , 3)

FIT .W09 OFFSET.M47
POSITION SPACERS FOR OFFSET WITH HAMMER AT SHEETMETAL SHOP
PER OFFSET OFG: 4 08-APR-83

NASSCO SHEETMETAL SHAPE #13
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7595
* 18 GAUGE GALV. SHEETMETAL
* 20'X13'X55'L OFFSET, OFFSET 12
* PROTECT PITTSBURGH LOCKS WITH SPACERS -
* BEFORE ROLLING
FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FASTEN SHEETMETAL TO WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7) A 1 B 0 (A1 B0 PO F6)A1 B0 P1 A0 (16)	1.00	1160.
3	POSITION SHEETMETAL [SPACERS] TO SHEETMETAL [PITTSBURGH LOCK] AT WORKTABLE WITH 3 STEPS F 8		
	A1 B0 G1 A6 B0 P6 A0	8.00	1 1 2 0 .
4	FASTEN SHEETMETAL [SPACERS] TO SHEETMETAL [PITTSBURGH LOCKI] AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7) A1 B0 G1 (A1 B0 PO F3)A1 B0 P1 A0 (16)	1.00	680.
5	PLACE MASKING-TAPE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 16		
	A1 B0 G1 A6 B0 P3 A0	16.00	1760.
6	MOUE SHEETMETAL2 FROM WORKTABLE TO ROLLER A1 B0 G1 A54 B0 P1 A0	1.00	570.
	TOTAL TMU		5510.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

54, 160

T

Please input file <OFFSET.M48> ?

File Description ? FORM RADIUS ON WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

(3 9 , 3)
FIT .W09 OFFSET.M48
FORM RADIUS ON WRAPPERS FOR OFFSET WITH ROLL FORMER (ROLLER) AT
SHEETMETAL SHOP
PER OFFSET OFG: 4 08-APR-83
NASSCO SHEETMETAL SHAPE #13
* HULL 414
* DRAWING 501-062
* V2-1098
* V6-7595
* 18 GAUGE GALV. SHEETMETAL
* 20'X13'X55'L OFFSET, OFFSET 12'
* CHECK RADIUS ON WRAPPERS WITH
* RADIUS ON CHEEK
FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL2 FROM FITTER AT ROLLER TO ROLLER WITH
3 STEPS F 4
A1 B0 G1 A6 B0 P3 A0 4.00 440.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT ROLLER 6 SPINS
USING HAND WITH 2 STEPS F 10
A1 B0 G1 A1 B0 P1 F10 A0 B0 PO A0 10.00 1400.
3 PUSH ROLLER-BUTTON PROCESS F 16
A1 B0 G1 M1 X96 IO A0 16.00 15840.
4 POSITION SHEETMETAL2 [WRAPPERS] FROM ROLLER TO
SHEETMETAL2 [CHEEK] AT ROLLER WITH 3 STEPS F 8
A1 B0 G1 A6 B0 P6 A0 8.00 1120.
5 MOVE SHEETMETAL2 FROM ROLLER TO WORKTABLE
A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 19400. -

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

73,560

Please input file <OFFSET.M49> ?

File Description ? ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET

Output to line-printer <Y or N>? N

(3 9 , 3)

FIT

OFFSET.M49

ASSEMBLE- CHEEKS AND WRAPPERS FOR UPPSET WITH HAMMER AT SHEETMETAL

OPER
PER

UPPSET

UPPSET 4 08

* NASCO SHEETMETAL SHAPES #13

* HULL 414

* DRAWING 501-062

* V2-1098

* 116-7595

* 18 GAUGE GALV. SHEETMETAL

* 20'X13'X55' L OFFSET, OFFSET 12

* HOLD CHEEKS & WRAPPERS IN POSITION WITH

* BARCLAMP

FITTER BEGINS AT WORKTABLE

PLACE SHEETMETAL2 FROM PITTBURGH'S FITTER AT WORKTABLE TO WORKTABLE

~~WITH 2 STEPS~~

	A 1 B 0 G1 A3 B0 P3 A0	1.00	80.
2	REPLACE MASKING-TAPE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 18_		
	A1 B0 G1 A6 B P3 A0	16.00	1760.
3	LOOSEN SHEETMETAL [SPACERS] FROM SHEETMETAL [PITTSBURGH LOCKS] AT WORKTABLE-1-STRIKE USING HAMMER AT WORKTABLE "AND ASIDE PF 16 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 L3)A1 B0 P1 A0 (16)	1.00	680.
4	MOVE BARCLAMP2 FROM TOOLROOM TO WORKTABLE		
	'A96 B0 G1 A96 B3 P1 A0	1.00	1970.
5	POSITION SHEETMETAL [CHEEK] TO SHEETMETAL [WRAPPERS] AT WORKTABLE WITH 3 STEPS F2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
6	PLACE BARCLAMP FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6		
	A1 B0 G1 A1 B0 P3 A0	6.00	360.
7	FASTEN BARCLAMP TO SHEETMETAL AT WORKTABLE 3 'WRIST-TURNS USING HAND PF 6 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 F6)A0 B0 P0 A0 (6)	1.00	500.
8	POSITION SETTINGTOOL TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 24		
	A1 B0 G1 A3 B0 P6 A0 b	24.00	2640.
F A S T E N	SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES 'USING HAMMER AT WORKTABLE AND ASIDE PF 24 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 P6)A1 B0 P1 A0 (24)	1.00	1720.
10	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 7 STRIKES 'USING HAMMER AT WORKTABLE AND ASIDE PF 16 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 F16)A1 B0 P1 A0 (16)	1.00	2760.
	SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING-HAMMER AT WORKTABLE AND ASIDE PF 4 (4567)		
	A 1 B0 G1B0 (A1 B0 P0 F32)A1 B0 P1 A0 (80)	1.00	26440.
INSPECT	SHEETMETAL AT WORKTABLE 9 POINTS		

A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

OFFSET M.49

TOTAL TMU 39290.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

112,850

SHEET METAL SHAPE # 13

18" X 12" X 46" LG OFFSET - OFFSET 24"

<u>FAB</u>	<u>42080</u>	<u>=</u>	<u>25. MIN.</u>	<u>7</u>
<u>MARK OUT</u>	<u>21540</u>	<u>=</u>	<u>13 MIN.</u>	<u>2</u>
<u>WELD</u>	<u>104160</u>	<u>=</u>	<u>62 MIN</u>	
<u>TOTAL</u>	<u>167780</u>	<u>=</u>	<u>100 MIN</u>	

File Description ? MARK OUR CHEEKS FOR RECTANGULAR OFFSET

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 OFFSET.M01
MARK OUT CHEEKS FOR RECTANGULAR OFFSET WITH AWL AT SHEETMETAL
SHOP
PER OFFSET OFG: 4 26-MAY-83
NASSCO SHEETMETAL SHAPE 13
* 11 GAUGE GALV. SHEETMETAL
* 18'X12'X60'L RECTANGULAR OFFSET
* OFFSET 24
* MARK OUT CHEEKS WITH TEMPLATE
FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 5 STEPS F 2	A1 B0 G1 A10 B0 P6 A0	2.00	360.
2	POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 6	A1 B0 G1 A6 B0 P6 A0	6.00	840.
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6)	1.00	1120.
4	REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 6	A1 B0 G1 A6 B0 P3 A0	6.00	660.
5	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 5 STEPS F 2	A1 B0 G1 A10 B0 P3 A0	2.00	300.
6	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6)	1.00	1120.
7	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 44 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (44)	1.00	2240.
8	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (52)	1.00	2640.
			TOTAL TMU	9280.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR OFFSET

Output to line-printer <Y or N> ? N

(3 9 , 1)

FIT .W11

OFFSET.MO3

SHEAR SHEETMETAL FOR RECTANGULAR OFFSET WITH 14FT. SHEAR AT
SHEETMETAL SHOP

PER OFFSET

OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 13

* 11 GAUGE GALV. SHEETMETAL

* 18'X12'X46'L RECTANGULAR OFFSET

* OFFSET 24'

FITTER BEGINS AT 14FT.SHEAR

1 POSITION SHEETMETAL2 FROM CART AT 14FT.SHEAR TO
14FT.SHEAR WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 2

A1 B0 G1 M1 X3 IO A0 2.00 120.

3 POSITION SHEETMETAL2 FROM 14FT.SHEAR TO 14FT.SHEAR WITH
3 STEPS F 16

A1 B0 G1 A6 B0 P6 A0 16.00 2240.

4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 16

A1 B0 G1 M1 X3 IO A0 16.00 960.

5 REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT
14FT.SHEAR WITH 10 STEPS F 2

A1 B0 G1 A16 B0 P3 A0 2.00 420.

6 MOUE CART FROM 14FT.SHEAR TO WORKTABLE

A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 4890.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

OFFSET.M04

File Description ? CUT RADIUS ON CHEEKS FOR OFFSET

output to line-printer <Y or N> ? N

(3 9 , 1)
FIT .W11 OFFSET.M04
CUT RADIUS ON CHEEKS FOR RECTANGULAR OFFSET WITH SABER-SAW AT
SHEETMETAL SHOP
PER OFFSET OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 13
* 11 GAUGE GALV. SHEETMETAL
* 18'X12'X60'L RECTANGULAR OFFSET
* OFFSET 24'
* CUT RADIUS & CORNERS ON CHEEKS
* CUT CORNERS ON WRAPPERS
FITTER BEGINS AT WORKTABLE

1	POSITION SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEP'S F 2	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	FASTEN NUT (SAW-BLADE) TO SABER-SAW AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE F 4	A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0	4.00	560.
4	OPERATE SABER-SAW AT WORKTABLE PROCESS F 20	A1 B0 G1 M6 X67 IO A0	20100	13000.
5	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
6	MOUE CART FROM WORKTABLE TO ROLLER	A1 B0 G1 A54 B0 P1 A0	1.00	570.
			TOTAL TMU	18600.

Type D,EM,CT,EX,T,W <or H for help> ?

23490

File Description ? FORM RADIUS ON WRAPPERS FOR OFFSET

output to line-printer <Y or N> ? N

(3 9 , 1)

FIT .W11

OFFSET.MO5

FORM RADIUS ON WRAPPERS FOR RECTANGULAR OFFSET WITH
ROLLER (ROLL FORMER) AT SHEETMETAL SHOP
PER OFFSET.

OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 13

* 11 GAUGE GALV. SHEETMETAL
* 18'X12'X60'L RECTANGULAR OFFSET
* OFFSET.24'
* ROLL-UP WRAPPER RADIUSSES AND --
* CHECK THEM WITH RADIUSSES ON CHEEKS
* COMPLETE IN WELD BOOTH AREA
* SEE MWELD... SEE OFFSET.MO6
FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL2 FROM CART AT ROLLER TO ROLLER WITH 4
STEPS F 2

A1	B0	G1	A6	B0	P3	A0	2.00	220.
----	----	----	----	----	----	----	------	-------------

2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT ROLLER 3 SPINS
USING HAND WITH 2 STEPS F 6

A1	B0	G1	A1	B0	P1	F6	A0	B0	PO	A0	6.00	600.
----	----	----	----	----	----	----	----	----	----	----	------	------

3 PUSH ROLLER-BUTTON PROCESS F 16

A1	B0	G1	M1	X96	IO	A0	16.00	15840.
----	----	----	----	-----	----	----	-------	--------

4 POSITION SHEETMETAL FROM ROLLER TO SHEETMETAL AT
ROLLER WITH 3 STEPS F 8

A1	B0	G1	A6	B0	P6	A0	8.00	1120.
----	----	----	----	----	----	----	------	-------

5 PLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH 10
STEPS

A1	B0	G1	A16	B0	P3	A0	1.00	210.
----	----	----	-----	----	----	----	------	------

6 MOVE CART FROM ROLLER TO WORKTABLE

A1	B0	G1	A54	B3	P1	A0	1.00	600.
----	----	----	-----	----	----	----	------	------

TOTAL TMU 18590.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for heLP> ?

42080

OFFSET M.O. 6

ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF

8 0 (4 5 6 7)

	A1	B0	G1	(A1	B0	P1	C10	)A1	B0	P1	A0	(80)	1.00	9640.
15	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT													
	WELDTABLE WITH 4 STEPS F 2													
	A1	B0	G1	A6	B0	P3	A0						2.00	220.
16	FITTER MOVE CART FROM WELDTABLE TO WORKTABLE													
	A1	B0	G1	A131	B0	P1	A0						1.00	1340.

TOTAL TMU 104160.

File Description ? WELD OFFSET

output to line-Printer <Y or N> ?

FESBO

File Description

MARK OUT CHEEKS FOR RECTANGLE OFFSET

TITLE (• REQUIRED)		SPECIAL CONDITIONS / • KEYPOINTS			
• ACTIVITY: <u>MARK</u>		<u>N.A.S.S.C.O. SHEETMETAL SHAPE #13</u>			
• OBJECT <u>SHEETMETAL</u>		<u>* 11 GAUGE GALV. 18"X12"X60" LG OFFSET. OFFSE</u>			
<input type="checkbox"/> IN <input type="checkbox"/> ON <input type="checkbox"/> FOR		<u>24" MARK OUT CHECKS WITH TEMPLATE</u>			
PRODUCT/EQUIPMENT.					
TOOL: <u>AWL.</u>		DATA UNIT TO BE FILED	TEMPORARY FILE NAME/NO.	DELETE YES NO	
• <input type="checkbox"/> TO <input checked="" type="checkbox"/> AT		WORK AREA LAYOUT MOST ANALYSIS COMBINED SUB-OP TITLE SHEET	<u>FIT. W.O.TH 11</u>	<input type="checkbox"/>	<input type="checkbox"/>
SIZE/CAPACITY:			<u>OFFSET M.O.TH 1</u>	<input type="checkbox"/>	<input type="checkbox"/>
• WORK AREA ORIGIN: <u>SHOP</u>				<input type="checkbox"/>	<input type="checkbox"/>
WORK AREA NUMBER:				<input type="checkbox"/>	<input type="checkbox"/>
• UNIT. <u>PER OFFSET</u>		12 500/1000 3 215/1000 2 215/1000 4 145/1000		OPG: <u>4</u>	
• OPERATOR:		• BEGINS:		DATE FILED	LOC. NO.
				DATA COORDINATE	

[illegible]

Revised 650 1-17 83


1107 - y 1201

SHEETMETAL RIVETED (TEMPORARILY) FLANGE

20" x 20" FLANGE

<u>RIVET FLANGE</u>	<u>TOTAL TMS</u>	<u>5400</u>	<u>3 MIN.</u>
---------------------	------------------	-------------	---------------

File Description ? RIVET FLANGE TO VENT DUCT (TEMPORARILY)

 Output to line-printer <Y or N> ? N

(39, 101)

FIT .W12

FLANGE.M10

RIVET FLANGE **ON** VENT DUCT WITH RIVET-GUN AT SHEETMETAL **SHOP**
PER FLANGE OFG: 4 28-JUN-83

RIVET TEMPORARILY FOR SHIPPING AND FITTING

* 20'X20' GALV. FLANGE

* ATTACH FLANGE TO VENT DUCT TEMPORARILY--

* --FOR SHIPPING AND PRELIMINARY FITTING

FITTER BEGINS AT WORKTABLE

1 MOUE FLANGE FROM FLANGEAREA TO WORKTABLE

A152B0 G1 A152B3 P1 A0 1.00 3090.

2 POSITION FLANGE 'FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE

A1 B0 G1 A1 B0 P6 A0 1.00 90.

3 FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3

WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE

A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.

4 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 4

A1 B0 G1 A1 B0 P6 A0 4.00 360.

5 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 4

A1 B0 G1 M6 X6 IO A0 4.00 560.

6 **POSITION** RIVET FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 4

A1 B3 G1 A1 B0 P6 A0 4.00 360.

7 POSITION RIVETGUN FROM WORKTABLE TO RIVET AT WORKTABLE
F 4

A1 B0 G1 A1 B0 P6 A0 4.00 360.

8 OPERATE RIVETGUN AT WORKTABLE PROCESS F 4

A1 B0 G1 M6 X3 IO A0 4.00 440.

TOTAL TMU 5400.

Type D,EM,CT,EX,T,W <or H for help> ?

SHEETMETAL (TEMPORARILY) RIVETED FLANGE

8" X 6" FLANGE

RIVIT FLANGE TOTAL TMU. 5400 3.MIN

SHEET METAL BELLMOUTH

12" x 15" to 21" x 24" BELLMOUTH

<u>FAB</u>	<u>28251</u>	<u>17 MIN</u>
<u>MARK OUT</u>	<u>90160</u>	<u>54 MIN.</u>
<u>WELD</u>	<u>16080</u>	<u>10 MIN.</u>
<u>TOTAL TMU.</u>	<u>134491</u>	<u>80 TMU.</u>

Please input file <BMOUTH.M30> ?

File Description ? MARK OUT SHEETMETAL FOR BELLMOUTH

Output to line-printer (Y or N) ? N

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( 39,101)
FIT      • W12                      BMOUTH.M30
MARK OUT SHEETMETAL FOR BELLMOUTH WITH AWL AT SHEETMETAL SHOP
PER BELLMOUTH                      OFG: 4 28-JUN-83
  NASSCO SHEETMETAL SHAPE 14
  * 20 GAUGE GALV. SHEETMETAL
  * 12'X15' TO 21'X24' BELLMOUTH
  * MARK OUT WITH TEMPLATE
  * CENTER PUNCH BOLT HOLES
  FITTER BEGINS AT WORKTABLE

1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 4
                        A1 B0 G1 A1 B0 P6 A0      4.00      360.
2 POSITION WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE
  WITH 3 STEPS F 4
                        A1 B0 G1 A6 B0 P6 A0      4.00      560.
3 MARK LINES ON SHEETMETAL A1- WORKTABLE 5 DIGITS USING
  AWL AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
                        A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (12)  1.00      2200.
4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 12
                        A1 B0 G1 A1 B0 P6 A0      12.00      1080.
5 FASTEN CPUNCH TO SHEETMETAL A-f WORKTABLE 1 STRIKE USING
  HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
                        A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (12)  1.00      520.
6 REPLACE WEIGHTS FROM TE AT WORKTABLE TO WORKTABLE WITH
  3 ST 3 STEPS F 4
                        A1 B0 G1 A6 B0 F3 A0      4.00      440.
7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO
  WORKTABLE F 4
                        A1 B0 G1 A1 B0 F3 A0      4.00      240.
8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
  USING REDPEN AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )
                        A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (12)  1.00      2200.
9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
  ASIDE PF 40 ( 4 5 6 7 )
                        A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (40)  1.00      2040.
10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING BLACKPEN AT WORKTABLE AND ASIDE
                        A1 B0 G1 A1 B0 P1 R3 A1 B0 P1 A0      1.00      90.

                                TOTAL TMU      9730.
```

File Description ? MARK OUT SHEETMETAL FOR BELLMOUTH

Output to line-printer <Y or N) ?

File Description ? MARK OUT 2X2 WIRE MESH FOR BELLMOUTH

Output to line-printer <Y or N> ? N

(39, 101)

FIT .W12

BMOUTH.M31

MARK OUT 2X2 WIRE MESH FOR BELLMOUTH WITH BLACK-PEN AT SHEETMETAL

SHOP

PER BELLMOUTH

OFG: 4 28-JUN-83

NASSCO SHEETMETAL SHAPE 14

* 20 GAUGE GALV. SHEETMETAL

* 12'X15' TO 21'X24' BELLMOUTH

FITTER BEGINS AT WORKTABLE

1	MOVE COMPOUND CUTTER SNIPS FROM TOOLROOM TO FLANGE AREA		
	A96 B0 G1 A152B0 P1 A0	1.00	2500.
2	CUT SHEETMETAL [2x2 WIRE MESH] AT FLANGEAREA 1 CUT		
	USING SNIPS AT FLANGEAREA AND ASIDE PF 20 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (20)	1.00	040.
3	MOVE SHEETMETAL [2X2 WIRE MESH] AND SNIPS TO WORKTABLE		
	A152B3 G1 A1 B0 P1 A0	1.00	1580.
4	MEASURE DIMENSIONS ON SHEETMETAL [2X2 WIRE MESH] AT		
	WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4		
	(4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (4)	1.00	1400.
5	MARK DIMENSIONS ON SHEETMETAL [2X2 WIRE MESH] AT		
	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND		
	ASIDE PF 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 F1 R3)A1 B0 P1 A0 (4)	1.00	240.
6	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL WIRE		
	MESH AT WORKTABLE F 2		
	A1 B0 G1 A1 B0 P6 A0	2.00	180.
7	MARK LINES ON SHEETMETAL [2x2 WIRE MESH] AT WORKTABLE 5		
	DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 2 (4		
	5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (2)	1.00	400.

TOTAL TMU 7340.

Type D,EM,CT,EX,T,W <or H for help> ?

17,070

File Description ? MARK OUT SCREEN FRAME FOR BELLMOUTH

Output to line-Printer <Y or N> ? N

```
( 39, 101)
FIT .W12 BMOUTH.M32
MARK OUT SCREEN FRAME FOR BELLMOUTH WITH AWL AT SHEETMETAL SHOP
PER BELLMOUTH OFG: 4 28-JUN-83
  NASSCO SHEETMETAL SHAPE 14
  * 20 GAUGE GALV. SHEETMETAL
  * 12 'X13' TO 21'X24' BELLMOUTH
  * MARK OUT WITHOUT TEMPLATE
  * CENTER PUNCH BEND LINES
  FITTER BEGINS AT WORKTABLE

1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
  STEEL-TAPE AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 F1 M32 )A1 B0 P1 A0 (5) 1.00 1740.,
2 MARK DIEMNSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING AWL AT WORKTABLE AND ASIDE PF 9 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (9) 1.00 490.
3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 2
    A1 B0 G1 A1 B0 P6 A0 2.00 180.
4 MARK LINE FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE
  5 DIGITS USING AWL AT WORKTABLE AND ASIDE F 2
    A1 B0 G1 A1 B0 P1 R16 A1 B0 P1 A0 2.00 440.
5 POSITION SQUARE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 8
    A1 B0 G1 A1 B0 F6 A0 8.00 720.
6 MARK LINES FROM SQUARE 45 DEGREES ON SHEETMETAL AT
  WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE F
  8
    A1 B0 G1 A0 B0 (F1 A1 R16 )A1 B0 P1 A0 (45) 8.00 65120.
7 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 8
    A1 B0 G1 A1 B0 P6 A0 8.00 720.
8 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
  HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (8) 1.00 360.
9 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
  USING REDPEN AT WORKTABLE AND ASIDE
    A1 B0 G1 A1 B0 P1 R16 A1 B0 P1 A0 1.00 220.
10 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND'
  ASIDE PF 16 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (16) 1.00 840.
11 MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT
  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
  ASIDE PF 26 ( 4 5 6 7 )
    A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (26) 1.00 1340.
12 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
  WITH 4 STEPS F 2
    A1 B0 G1 A6 B0 F3 A0 2.00 220.
13 MOVE CART FROM WORKTABLE TO SMALLSHEAR
    A1 B0 G1 A67 B0 P1 A0 1.00 700.
```

Bellmouth M.32

TOTAL TMU

73090.

file Description ? MARK OUT SCREEN FRAME FOR BELLMOUTH

Output to line-printer <Y or N> ?

File Description ? SHEAR SHEETMETAL FOR BELLMOUTH

Output to line-Printer <Y or N> ? N

(39, 101)

FIT • W12

BMOUTH.M33

SHEAR SHEETMETAL FOR BELLMOUTH WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP

PER BELLMOUTH

OFG: 4 28-JUN-83

NASSCO SHEETMETAL SHAPE 14

* 20 GAUGE GALV. SHEETMETAL

* 12'X15' TO 21'X24' BELLMOUTH

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 3

A1	B0	G1	A6	B0	F6	A0	3.00	420.
----	----	----	----	----	----	----	------	------

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

A1	B0	G1	M1	X6	IO	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 8

A1	B0	G1	A1	B0	P6	A0	8.00	720.
----	----	----	----	----	----	----	------	------

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8

A1	B0	G1	M1	X6	IO	A0	8.00	720.
----	----	----	----	----	----	----	------	------

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 10 STEPS F 2

A1	B0	G1	A16	B0	P3	A0	2.00	420.
----	----	----	-----	----	----	----	------	------

6 MOVE CART FROM SMALLSHEAR TO WORKTABLE

A1	B0	G1	A67	B3	P1	A0	1.00	730.
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TOTAL TMU 3100.

File Description ? SHEAR SHEETMETAL FOR BELLMOUTH

Output to line-Printer <Y or N> ?

File Description ? SHEAR SHEETMETAL RADIUS FOR BELLMOUTH

OutPut to line-printer <Y or N> ? N

(39,101)

FIT .W12 BMOUTH.M34
 SHEAR RADIUS FOR BELLMOUTH WITH UNI-SHEAR AT SHEETMETAL SHOP
 PER BELLMOUTH OFG: 4 29-JUN-83
 NASSCO SHEETMETAL SHAPE 14
 * 20 GAUGE GALV. SHEETMETAL
 * 12'X15' TO 21'X24'
 FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 P3 A0	2.00	220,
2	MOUE UNISHEAR2 FROM TOOLROOM TO WORKTABLE	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8	A1 B0 G1 A1 B0 P6 A0	8.00	720.
4	OPERATE UNISHEAR AT WORKTABLE PROCESS F 8	A1 B0 G1 M6 X173I0 A0	8.00	14480,
5	PLACE SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	A1 B0 G1 A1 B0 F3 A0	4.00	240.
6	CUT 45DEGREE CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)	A1 B0 G1 (A1 B0 P3 C3)A1 B0 P1 A0 (4)	1.00	320.
7	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	A1 B0 G1 A6 B0 F3 A0	2.00	220.
8	MOUE CART FROM WORKTABLE TO ROLLER	A1 B0 G1 A54 B0 F1 A0	1.00	570.
			TOTAL TMU	18740.

File Description ? SHEAR SHEETMETAL RADIUS FOR BELLMOUTH

Output to line-printer <Y or N> ?

File Description ? FORM RADIUS FOR BELLMOUTH

Output to line-printer <Y or N> ? N

(39,101)

FIT .W12 BMOUTH.M35
FORM RADIUS FOR BELLMOUTH WITH HAND OPERATED ROLLER AT SHEETMETAL
SHOP
PER BELLMOUTH OFG: 4 29-JUN-83
NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 12 'X15' TO 21 'X24' BELLMOUTH
* CHECK RADIUS WITH TEMPLATE
FITTER BEGINS AT WORKBENCH

1	POSITION SHEETMETAL2 FROM CART AT WORKBENCH TO HAND-ROLLER AT WORKBENCH WITH 4 STEPS F 4		
	A1 B0 G1 A6 B0 F6 A0	4.00	560.
2	FASTEN BOLT [ROLLS] TO SHEETMETAL AT HAND-ROLLER AT WORKBENCH 3 SPINS USING FINGERS AT WORKBENCH F 2		
	A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0	2.00	200.
3	CRANK HAND-ROLLER AT WORKBENCH 3 REV F 16		
	A1 B0 G1 M6 X0 IO A0	16.00	1280.
4	PLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO SHEETMETAL2 [CHEC RADIUS] AT WORKBENCH F 4		
	A1 B0 G1 A1 B0 P3 A0	4.00	240.
5	REPLACE SHEETMETAL FROM WORKBENCH TO CART AT WORKBENCH WITH 4 STEPS F 4		
	A1 B0 G1 A6 B0 P3 A0	4.00	440.
6	MOVE CART FROM WORKBENCH TO LEAFBRAKE		
	A1 B0 G1 A10 B0 P1 A0	1.00	130.
		TOTAL TMU	2850.

File Description ? FORM RADIUS FOR BELLMOUTH

Output to line-printer <Y or N> ?

File Description ? BEND SHEETMETAL FOR BELLMOUTH

Output to line-Printer <Y or N> ? N

(39, 101)

FIT .W12

BMOUTH.M36

BEND SHEETMETAL FOR BELLMOUTH WITH LEAFBRAKE AT SHEETMETAL SHOP

PER BELLMOUTH

OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 14

* 20 GAUGE GALV. SHEETM

* 12'X15' TO 21'X24' BELLMOUTH

* BEND FRAME AS INDICATED

* KINK UP FLANGE ON BELLMOUTH SECTIONS

FITTER BEGINS AT LEAFBRAKE

- 1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO
LEAFBRAKE WITH 4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

- 2 OPERATE LEAFBRAKE-LEVER PROCESS

A1 B0 G1 M6 X16 IO A0 1.00 240.

- 3 POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE F 7

A1 B0 G1 A1 B0 P6 A0 7.00 630.

- 4 OPERATE LEAFBRAKE-LEVER PROCESS F 7

AL B0 G1 M6 X16 IO A0 7.00 1680.

- 5 REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE
F5

A1 B0 G1 A1 B0 P3 A0 5.00 300.

- 6 HOVE CART FROM LEAFBRAKE TO SPOTWELDER

A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 3560.

File Description ? BEND SHEETMETAL FOR BELLMOUTH

Output to line-printer <Y or N> ?-

File Description ? SPOT WELD SCREEN ASSEMBLY FOR BELLMOUTH

Output to line-printer <Y or N> ? N

(39, 101)

FIT ● W12

BMOUTH.M37

WELD SCREEN ASSEMBLY FOR BELLMOUTH WITH SPOT WELDER AT SHEETMETAL

SHOP

PER BELLMOUTH

OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 14

* 20 GAUGE GALV. SHEETMETAL

* 12'X15' TO 21'X24' BELLMOUTH

* SPOT WELDING MACHINE REQUIRESS THE--

* --ASSISTANCE OF A DESIGNATED OPERATOR

FITTER BEGINS AT SPOTWELDER

1 POSITION SHEETMETAL [FRAME] FROM CART AT SPOTWELDER TO
SPOTWELDER WITH 4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 POSITION SHEETMETAL2 [2X2 WIRE MESH] FROM SPOTWELDER TO
SHEETMETAL [FRAME] AT SPOTWELDER WITH 4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

3 MOVE VISEGRIPS FROM WORKTABLE TO SPOTWELDER

A54 B3 G1 AS4 B0 P1 A0 1.00 1130.

4 GRIP SHEETMETAL TO SHEETMETAL AT SPOTWELDER USING
VISEGRIPS AT SPOTWELDER AND ASIDE PF 5 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (5) 1.00 290.

5 POSITION SHEETMETAL FROM SPOTWELDER TO SPOTWELDER F 50

A1 B0 G1 A1 B0 P6 A0 50.00 4500.

6 OPERATE SPOTWELDER-FOOTPEDAL PROCESS F 50

A1 B0 G1 M6 X6 IO A0 50.00 7000.

7 REPLACE SHEETMETAL FROM SPOTWELDER TO- CART AT
SPOTWELDER WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

8 MOVE VISEGRIPS FROM SPOTWELDER TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

9 MOVE CART FROM SPOTWELDER TO WELDOUT

A54 B0 G1 A42 B3 P1 A0 1.00 1010.

TOTAL TMU 14920.

File Description ? SPOT WELD SCREEN ASSEMBLY FOR BELLMOUTH

Output to line-printer <Y or N> ?

File Description ? TACK WELD SHEETMETAL BELLMOUTH

Output to line-printer <Y or N> ? N

(39, 101)

FIT .W12

BMOUTH.M38

TACK WELD SHEETMETAL BELLMOUTH WITH TACK-WELDER AT SHEETMETAL
SHOP

PER BELLMOUTH'

OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 14

* 20 GAUGE GALV. SHEETMETAL

* 12'X15' TO 21'X24' BELLMOUTH

* TACK WELD CORNER EDGES

FITTER BEGINS AT WELDOUT

1 PLACE SHEETMETAL FROM CART AT WELDOUT TO TABLE AT
WELDOUT WITH 4 STEPS F 2

A1 0 G1 A6 B0 P3 A0 2.00 220.

2 MOVE VISEGRIPS FROM WORKTABLE TO WELDOUT

A54 B3 G1 A54 B3 P1 A0 1.00 1160.

3 GRIP SHEETMETAL TO SHEETMETAL AT T AT WELDOUT USING
VISEGRIPS AT WELDOUT AND ASIDE PF 8 (4 5 6 7)

A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (8) 1.00 440.

4 POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL AT
WELDOUT F 20

A1 B0 G1 A1 B0 P6 A0 20.00 1800.

5 OPERATE TACKWELDER AT WELDOUT PROCESS F 20

A1 B0 G1 M6 X3 I0 A0 20.00 2200.

6 REPLACE SHEETMETAL FROM TABLE AT WELDOUT TO CART AT
WELDOUT WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

7 MOVE CART FROM WELDOUT TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 6530.

File Description ? TACK WELD SHEETMETAL BELLMOUTH

Output to line-printer <Y or N> ?

File Description ? WELD BELLMOUTH

Output to line-printer <Y or N> ? N

(39, 3)

WELD .W01

BMOUTH.M39

WELD BELLMOUTH WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH

PER BELLMOUTH

OFG: 4 18-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 14

* 20 GAUGE GALV. SHEETMETAL

* 12'X15' TO 21'X24'

* WELD SHEETMETAL IN WELD AREA BOOTH

* WELDOR PERFORMS THE WORK

* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	FITTER MOUE CART FROM WORKTABLE TO WELDTABLE		
	A1 B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 F3 A0	1.00	110.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 B0 G1 M1 X0 IO A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M1 X0 IO A1	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND		
	A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0	1.00	70.
7	WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M3 X0 IO A1	1.00	60.
8	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4		
	A3 B3 G1 A1 B0 P6 A0	4.00	560.
9	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4		
	A1 B0 G1 M1 X10 IO A0	4.00	520.
10	WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4		
	A1 B0 G1 A1 B0 P6 A0	4.00	360.
11	FULL WELDHOO FROM UP AT WELDOR TO DOWN AT WELDOR F 4		
	A1 B0 G1 M1 X0 IO A1	4.00	160.
12	WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 4		
	A1 B0 G1 A1 B6 P6 A0	4.00	600.
13	OPERATE WELD STINGER-BUTTON1 PROCESS F 10		
	A1 B0 G1 M6 X81 IO A0	10.00	8900.
14	PUSH WELDHOO FROM DOWN AT WELDOR TO UP AT WELDOR F 4		
	A1 B0 G1 M1 X0 IO A1	4.00	160.
	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10		
	ARM-STROKES USING WIREBRUSH A1- WELDTABLE AND-ASIDE PF		
	1 0 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 C10)A1 B0 P1 A0 (10)	1.00	1240.

BMOUTH M39

16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
WELDTABLE WITH 4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

17 FITTER MOUE CART FROM WELDTABLE TO WORKTABLE

A1	B0	G1	A131B0	P1	A0	1.00	1340.
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TOTAL	TMU	16080.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ASSEMBLE BELLMOUTH

Output to line-printer <Y or N> ? N

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( 39, 101)
FIT .W12 BMOUTH.M40
ASSEMBLE BELLMOUTH WITH DRILLMOTOR AT SHEETMETAL SHOP
PER BELLMOUTH OFG: 4 29-JUN-83
NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 12'X15' TO 2X24' BELLMOUTH
* BOLT SCREEN FRAME TO BELLMOUTH
* GRIND WELDS SMOOTH
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS
                                     A1 B0 G1 A6 B0 P3 A0      1.00      110.
2 PLACE SHEETMETAL [BELLMOUTH] TO SHEETMETAL [SCREEN
  FRAME] AT WORKTABLE
                                     A1 B0 G1 A1 B0 P3 A0      1.00      60.
3 FASTEN 5-32DRILLBIT PILOT TO DRILLMOTOR AT WORKTABLE 3
  WRIST-TURNS USING HAND AT WORKTABLE'
                                     A1 B0 G1 A1 B0 P1 F6 A0 B0 PO A0      1.00      100.
4 PLACE VISEGRIPS FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 4
                                     A1 B0 G1 A1 B0 P3 A0      4.00      240.
  5 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING
  VISEGRIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
                                     A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (4) 1.00      2 4 0 .
6 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 12
                                     A1 B0 G1 A1 B0 P6 A0      12.00      1080.
7 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 12
                                     A1 B0 G1 M6 X6 IO A0      12.00      1680.
8 LOOSEN 5-32DRILLBIT FROM DRILLMOTOR AT WORKTABLE 3
  WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
                                     A1 B0 G1 A1 B0 P3 L6 A1 B0 P1 A0      1.00      140.
9 FASTEN 5.16DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3
  WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
                                     A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0      1.00      140.
10 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 12
                                     A1 B0 G1 A1 B0 F6 A0      12.00      1080.
11 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 12
                                     A1 B0 G1 M6 X6 IO A0      12.00      1680.
12 POSITION 1 / 4'BOLT AND-NUT FROM WORKTABLE TO
  SHEETMETAL AT WORKTABLE F 12
                                     A1 B0 G1 A1 B0 P6 A0      12.00      1080.
13 FASTEN BOLT TO SHEETMETAL [NUT] AT WORKTABLE 10
  WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE PF 12
  ( 4 5 6 7 )
                                     A1 B0 G1 (A1 B0 P3 F24 )A1 B0 F1 A0 (12) 1.00      3400.
14 MOVE GRINDER FROM TOOLROOM TO WORKTABLE
                                     A96 B0 G1 A96 B3 P1 A0      1.00      1970.
15 POSITION GRINDER FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 4
```

BELLMOUTH 40

	A1	B0	G1	A1	B0	P6	A0		4.00	360.			
16	OPERATE	GRINDER	AT	WORKTABLE	PT 7	S F 4							
	A1	B0	G1	M6	X16	IO	A0		4.00	960.			
17	INSPECT	SHEETMETAL	AT	WORKTABLE	9	POINTS							
	A0	B0	G0	A0	B0	P0	T10	A0	B0	P0	A0	1.00	100.
											TOTAL	TMU	14420.

File Description ? ASSEMBLE BELLMOUTH

Output to line-printer (Y or N> ?

SHEET METAL BELMOUTH

6" x 8" to 10 1/2" x 12 1/2" BELMOUTH

<u>FAB</u>	<u>74630</u>	<u>45</u>
<u>MARK OUT</u>	<u>26040</u>	<u>16</u>
<u>WELD</u>	<u>12080</u>	<u>7</u>
<u>TOTAL TMU.</u>	<u>129,346</u>	<u>78</u>

File Description ? MARK OUT SHEETMETAL FOR BELLMOUTH

Output to line-printer <Y or N> ? N

(39, 101)

FIT .W12

BMOUTH.MO1

MARK OUT SHEETMETAL FOR BELLMOUTH WITH AWL AT SHEETMETAL SHOP
PER BELLMOUTH OFG: 4 24-JUN-83

NASSCO SHEETMETAL BELLMOUTH

* 20 GAUGE GALV. SHEETMETAL

* 6'X8' TO 10 1/2'X 12 1/2' BELLMOUTH

* MARK OUT WITH TEMPLATE

* CENTER PUNCH BOLT HOLES

FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE TO SHEETMETAL AT WORKTABLE F 4		
	A1 B0 G1 A1 B0 P6 A0	4.00	360.
2	POSITION WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 4		
	A1 B0 G1 A6 B0 P6 A0	4.00	560.
3	MARK LINES ON SHEETMETAL FROM TEMPLATE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 F1 A0 (12)	1.00	2200.
4	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4		
	A1 B0 G1 A1 B0 P6 A0	4.00	360.
5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 PO F3)A1 B0 F1 A0 (4)	1.00	200.
6	REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 4		
	A1 B0 G1 A6 B0 P3 A0	4.00	440,
7	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE F 4		
	A1 B0 G1 A1 B0 P3 A0	4.00	240.
8	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (12)	1.00	2200.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 40 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (40)	1.00	2040.
10	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE		
	A1 B0 G1 A1 B0 P1 R3 A1 B0 F1 A0	1.00	90.

TOTAL TMU 8690.

File Description ? MARK OUT SHEETMETAL FOR BELLMOUTH

Output to line-printer (Y or N> ?

File Description ? MARK OUT SCREEN FRAME FOR BELLMOH

Output to line-printer <Y or N> ? N

(39,101)

FIT .W12 BMOUTH.MO3
MARK OUT SCREEN FRAME FOR BELLMOUTH WITH AWL AT SHEETMETAL SHOP
PER BELLMOUTH OFG: 4 28-JUN-83

NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' TO 10 1/2'X12 1/2'
* MARK OUT WITHOUT TEMPLATE
* CENTER PUNCH BEND LINES
FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 5 (4 5 6 7) A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (5)	1.00	1740.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 9 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (9)	1.00	490.
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2 --A1 B0 G1 A1 B0 P6 A0	2.00	180.
4	MARK LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE F 2 A1 B0 G1 A1 B0 P1 R16 A1 B0 P1 A0	2.00	440.
5	POSITION SQUARE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8 A1 B0 G1 A1 B0 P6 A0	8.00	720.
6	MARK LINES FROM SQUARE [45 DEGREES] TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (8)	1.00	1480.
7	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8 A1 B0 G1 A1 B0 P6 A0	8.00	720.
8	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 (4 5 6 7) A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (8)	1.00	360.
9	HARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE A1 B0 G1 A1 B0 P1 R16 A1 B0 P1 A0	1.00	220.
10	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 16 (4 5 6 7) A1 B0 G1 (A1 B0 F1 R3)A1 B0 P1 A0 (16)	1.00	840.
11	MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R3)A1 B0 F1 A0 (26)	1.00	1340.
12	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2 A1 B0 G1 A6 B0 P3 A0	2.00	220.
13	MOUE CART FROM WORKTABLE TO SMALLSHEAR A1 B0 G1 A67 B0 P1 A0	1.00	700.

B Mouth.

TOTAL TMU

9450.

File Description ? MARK OUT SCREEN FRAME' FOR BELLMOH

Output to line-printer <Y or N> ?

26040

File Description ? SHEAR SHEETMETAL FOR BELLMOUTH

Output to line-printer <Y or N> ? N

(39, 101)

FIT .W12

BMOUTH.MO4

SHEAR SHEETMETAL FOR BELLMOUTH WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP

PER BELLMOUTH

OFG: 4 28-JUN-83

NASSCO SHEETMETAL SHAPE 14

* 20 GAUGE GALV. SHEETMETAL

* 6'X8' TO 10 1/2'X12 1/2' BELLMOUTH

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS F 3

A1 B0 G1 A6 B0 P6 A0 3.00 420.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

A1- B0 G1 M1 X6 IO A0 1.00 90.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 8

A1 B0 G1 A1 B0 P6 A0 8.00 720.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8

A1 B0 G1 M1 X6 IO A0 8.00 720.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 10 STEPS F 2

A1 B0 G1 A16 B0 P3 A0 2.00 420.

6 MOUE CART FROM SMALLSHEAR TO WORKTABLE

. A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 3100.

File Description ? SHEAR SHEETMETAL FOR BELLMOUTH

Output to line-printer <Y or N> ?

File Description ? SHEAR SHEETMETAL RADIUS FOR BELLMOUTH

Output to line-printer <Y or N> ? N

(39, 101)

FIT .W12

BMOUTH.MO5

SHEAR SHEETMETAL RADIUS FOR BELLMOUTH WITH UNI-SHEAR AT
SHEETMETAL SHOP

PER BELLMOUTH

OFG: 4 28-JUN-83

NASSCO SHEETMETAL SHAPE 14

* 20 GAUGE GALV. SHEETMETAL

* 6'X8' TO 10 1/2' X 12 1/2' BELLMOUTH

* CUT 45 DEGREE MITER CUTS IN FRAME--

x --BEFORE BENDING

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0

2.00 220.

2 MOUE UNISHEAR2 FROM TOOLROOM TO WORKTABLE

A96 B0 G1 A96 B3 P1 A0

1.00 1970.

3 POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 8

A1 B0 G1 A1 B0 P6 A0

8.00 720.

4 OPERATE UNISHEAR AT WORKTABLE PROCESS F 8

A1 B0 G1 M6 X173I0 A0

8.00 14480.

5 PLACE SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F

A1 B0 G1 A1 B0 P3 A0

4.00 240.

6 CUT 45 DEGREE CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS
USING SNIPS AT WORKTABLE AND ASIDE F 4

A1 B0 G1 A0 B0 (P3 A1 C3)A1 B0 P1 A0 (45)

4.00 12760.

7 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0

2.00 220.

8 MOUE CART FROM WORKTABLE TO ROLLER

A1 B0 G1 A54 B0 P1 A0

1.00 570.

TOTAL TMU

31180.

File Description ? SHEAR SHEETMETAL RADIUS FOR BELLMOUTH

Output to line-printer (Y or N) ?

34280

File Description ? FORM RADIUS FOR BELLMOUTH

Output to line-printer <Y or N> ? N\

%Invalid command.

Output to line-Printer <Y or N> ? N

(39, 101)

FIT .W12

BMOUTH.M06

FORM RADIUS FOR BELLMOUTH WITH HAND OPERATED ROLLER AT SHEETMETAL

SHOP

PER BELLMOUTH

OFG: 4 28-JUN-83

NASSCO SHEETMETAL SHAPE 14

* 20 GAUGE GALV. SHEETMETAL

* 6'X8' TO 10 1/2' X 12 1/2' BELLMOUTH

* CHECK RADIUS WITH TEMPLATE

FITTER BEGINS AT WORKBENCH

1 POSITION SHEETMETAL2 FROM CART AT WORKBENCH TO
HAND-ROLLER AT WORKBENCH WITH 4 STEPS F 4

A1 B0 G1 A6 B0 P6 A0

4.00 560.

2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT HAND-ROLLER AT
WORKBENCH 3 SPINS USING FINGERS AT WORKBENCH F 2

A1 B0 G1 A1 B0 P1 F6 A0 B0 PO A0

2.00 200.

3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS F 16

A1 B0 G1 M6 X0 IO A0

16.00 1280.

4 PLACE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO
SHEETMETAL [CHECK RADIUS] AT WORKBENCH F 4

A1 B0 G1 A67 B3 P3 A0

4.00 3000.

5 REPLACE SHEETMETAL2 FROM WORKBENCH TO CART AT WORKBENCH
WITH 4 STEPS F 4

A67 B3 G1 A6 B0 P3 A0

4.00 3200.

6 MOUE CART FROM WORKBENCH TO LEAFBRAKE

A1 B0 G1 A10 B0 P1 A0

1.00 130.

TOTAL TMU 8370.

File Description ? FORM RADIUS FOR BELLMOUTH

Output to line-printer <Y or N> ?

42,650

File Description ? BEND SHEETMETAL FOR BELLMOUTH

Output to line-printer <Y or N> ? N

(39, 101)

FIT .W12

BMOUTH.MO7

BEND SHEETMETAL FOR BELLMOUTH WITH LEAFBRAKE AT SHEETMETAL SHOP

PER BELLMOUTH

OFG: 4 28-JUN-83

NASSCO SHEETMETAL SHAPE 14

* 20 GAUGE GALV. SHEETMETAL

* 6'X8' TO 10 1/2'X12 1/2' BELLMOUTH

* BEND FRAME UP AS INDICATED

* KINK UP FLANGE ON BELLMOUTH SECTIONS

FITTER BEGINS AT LEAFBRAKE

- 1 POSITION SHEETMETAL2 FROM CART AT LEAFBRAKE TO
LEAFBRAKE WITH 4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

- 2 OPERATE LEAFBRAKE-LEVER PROCESS

--- A1 B0 G1 M6 X16 IO A0 1.00 240.

- 3 POSITION SHEETMETAL2 FROM LEAFBRAKE TO LEAFBRAKE F 7

A1 B0 G1 A1 B0 P6 A0 7.00 630.

- 4 OPERATE LEAFBRAKE-LEVER PROCESS F 7

A1 B0 G1 M6 X16 IO A0 7.00 1680.

- 5 REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE
F 5

A1 B0 G1 A1 B0 P3 A0 5.00 300.

6. MOVE CART FROM LEAFBRAKE TO SPOTWELDER

A1 B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 3560.

File Description ? BEND SHEETMETAL FOR BELLMOUTH

Output to line-printer <Y or N> ?

46,210

File Description ? SPOT WELD SCREEN ASSEMBLY FOR BELLMOUTH

Output to line-printer <Y or N> ? N

(39,101)
FIT .W12 BMOUTH.M08
WELD SCREEN ASSEMBLY FOR BELLMOUTH WITH SPOT WELDER AT SHEETMETAL
SHOP
PER BELLMOUTH OFG: 4 28-JUN-83

NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' TO 10 1/2'X12 1/2' BELLMOUTH
* SPOT WELDING MACHINE REQUIRES THE--
* --ASSISTANCE OF A DESIGNATED OPERATOR
FITTER BEGINS AT SPOTWELDER

1	POSITION SHEETMETAL2 [FRAME] FROM CART AT SPOTWELDER TO SPOTWELDER WITH 4 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	POSITION SHEETMETAL2 [1 / 2'X1 / 2' HARDWARE CLOTH] FROM SPOTWELDER TO SHEETMETAL [FRAME] AT SPOTWELDER WITH 4 STEPS		
	A1 B0 G1 A6 B3 P6 A0	1.00	170.
3	MOUE VISEGRIPS FROM WORKTABLE TO SPOTWELDER		
	A1 B0 G1 A54 B0 P1 A0	1.00	570.
4	GRIP SHEETMETAL2 TO SHEETMETAL2 AT SPOTWELDER USING VISEGRIPS AT SPOTWELDER AND ASIDE PF 5 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (5)	1.00	290.
5	POSITION SHEETMETAL2 FROM SPOTWELDER TO SPOTWELDER F 50		
	A1- B0 G1 A1 B0 P6 A0	50.00	4500.
6	OPERATE SPOTWELDER-FOOTPEDAL PROCESS F 50		
	A1 B0 G1 M6 X6 SO A0	50.00	7000.
7	REPLACE SHEETMETAL2 FROM SPOTWELDER TO CART AT SPOTWELDER WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
8	MOVE CART FROM SPOTWELDER TO WELDOUT		
	A1 B0 G1 A42 B3 P1 A0	1.00	480.
9	MOUE VISEGRIPS FROM SPOTWELDER TO WORKTABLE		
	A42 B0 G1 A54 B3 P1 A0	1.00	1010.
		TOTAL TMU	14270.

File Description ? SPOT WELD SCREEN ASSEMBLY FOR BELLMOUTH

Output to line-printer <Y or N> ?-

60,480

File Description ? TACK WELD SHEETMETAL BELLMOUTH

Output to line-Printer <Y or N> ? N

(39, 101)

FIT .W12

BMOUTH.MO9

TACK WELD SHEETMETAL BELLMOUTH WITH TACK WELDER AT SHEETMETAL
SHOP

PER BELLMOUTH

OFG: 4 28-JUN-83

NASSCO SHEETMETAL SHAPE 14

* 20 GAUGE GALV. SHEETMETAL

* 6'X8' TO 10 1/2'X12 1/2' BELLMOUTH

* TACK WELD CORNER EDGES

* COMPLETE WELDING AT WELD BOOTH

* SEE BMOUTH.M10

FITTER BEGINS AT WELDOUT

1 PLACE SHEETMETAL2 FROM CART AT WELDOUT TO TABLE AT
WELDOUT WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 MOVE VISEGRIPS FROM WORKTABLE TO WELDOUT

A54 B3 G1 A54 B3 P1 A0 1.00 1160.

3 GRIP SHEETMETAL2 TO SHEETMETAL2 AT TABLE AT WELDOUT
USING VISEGRIPS AT WELDOUT TABL AND ASIDE PF 8 (4 5 6
7)

A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (8) 1.00 440.

4 POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL AT
WELDOUT TABLE F 20

A1 B0 G1 A1 B0 P6 A0 20.00 1800.

5 OPERATE TAACKWELDER AT WELDOUT PROCESS F 20

A1 B0 G1 M6 X3 IO A0 20.00 2200.

6 REPLACE SHEETMETAL2 FROM TABLE AT WELDOUT TO CART AT
WELDOUT WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

7 MOUE CART FROM WELDOUT TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 6530.

File Description ? TACK WELD SHEETMETAL BELLMOUTH

Output to line-Printer <Y or N> ?

67,010

File Description ? WELD BELLMOUTH

Output to line-printer <Y or N> ? N

(39, 3)

WELD .W01 BMOUTH.M10
WELD BELLMOUTH WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH
PER BELLMOUTH OFG: 4 18-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 14
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' TO 10 1/2 X 12 1/2'
* WELDOR PERFORMS THE WORK
* FITTER TRANSPORTS SHEETMETAL
* WELD SHEETMETAL A-T WELD AREA BOOTH
FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	FITTER MOVE CART FROM WORKTABLE TO WELDTABLE		
	A1 B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 B0 G1 M1 X0 IO A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M1 X0 IO A1	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND		
	A1 B0 G1 A1 B0 P1 F3 A0 B0 PO A0	1.00	70.
7	WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M3 X0 IO A1	1.00	60.
8	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4		
	A3 B3 G1 A1 B0 P6 A0	4.00	560.
9	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4		
	A1 B0 G1 M1 X10 IO A0	4.00	520.
10	WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4		
	A1 B0 G1 A1 B0 P6 A0	4.00	360.
11	PULL WELDHOO FROM UP AT WELDOR TO DOWN AT WELDOR F 4		
	A1 B0 G1 M1 X0 IO A1	4.00	160.
12	WELDOR POSIT-ION WELDGUN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 5		
	A1 B0 G1 A1 B6 P6 A0	5.00	750.
13	OPERATE WELD STINGER-BUTTON1 PROCESS F 5		
	A1 B0 G1 M6 X81 IO A0	5.00	4450,
14	PUSH WELDHOO FROM DOWN AT WELDOR TO UP AT WELDOR F 4		
	A1 B0 G1 M1 X0 IO A1	4.00	160.
15	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE USING WIREBRUSH AT WELDTABLE AND ASIDE PF 50 (4 5 6 7		
	A1 B0 G1 (A1 B0 P1 C1)A1 B0 P1 A0 (50)	1.00	1540.

16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
WELDTABLE WITH 4 STEPS

TOTAL TMU	12080.
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Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

	A1	B0	G1	A1	B0	P6	A0		4.00	360.			
16	PUSH BUTTON ON GRINDER AT WORKTABLE PT 7 S F 4												
	A1	B0	G1	H1	X16	IO	A0		4.00	760.			
17	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS												
	A0	B0	GO	A0	B0	PO	T10	A0	B0	PO	A0	1.00	100.

TOTAL	TMU	7620.
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File Description ? ASSEMBLE BELLMOUTH

Output; to line-Printer <Y or N> ?

74, 6-30

SHEET METAL RIVETED JOINT

8" x 6" x 35" LG. RIVETED JOINT

TOTAL FMUS. 17880 11 MIN.

File Description ? RIVET SHEETMETAL JOINT

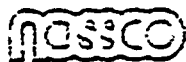
Output to line-printer <Y or N> ? N

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( 39, 1)
FIT .W11 RVTJNT .M01
RIVET SHEETMETAL FOR JOINT WITH RIVET GUN AT SHEETMETAL SHOP
PER RIVET JOINT OFG: 4 16-MAY-83
RIVETED JOINT ONLY
* 20 GAUGE GALV. SHEETMETAL
* 8'X6'X35' L RIVETED JOINT
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 2 STEPS
      A1 B0 G1 A3 B0 P3 A0 1.00 80.
2 PLACE SHEETMETAL FROM WORKTABLE TO WORKTABLE [TURNOVER]
  AT WORKTABLE
      A1 B0 G1 A1 B0 P3 A0 1.00 60.
3 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 4
      A1 B0 G1 A1 B0 P3 A0 4.00 240,
4 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1
  DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 22 ( 4
  5 6 7 )
      A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (22) 1.00 1140.
5 FASTEN 5-32DRILLBIT AT WORKTABLE 3 WRIST-TURNS USING
  CHUCKKEY AT WORKTABLE AND ASIDE
      A1 B0 G1 A1 B0 P3 F6 A1 B0 F1 A0 1.00 140.
6 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 22
      A1 B0 G1 A1 B0 P6 A0 22.00 1980.
7 OPERATE DRILLMOTOR PROCESS F 22
      A1 B0 G1 M6 X6 IO A0 22,00 3080.
8 POSITION RIVET FROM WORKTABLE TO SHETMETAL AT WORKTABLE
  F 22
      A1 B0 G1 A1 B0 P6 A0 22.00 1980.
9 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 22
      A1 B0 G1 A1 B0 P6 A0 22.00 1980.
10 OPERATE RIVETGUN PROCESS F 22
      A1 B0 G1 M6 X3 IO A0 22.00 2420.
11 POSITION CAULKINGGUN FROM WORKTABLE 'TO SHEETMETAL AT
  WORKTABLE F 26
      A1 B0 G1 A1 B0 P6 A0 26.00 2340.
12 GRIP SEALANT TO RIVET AT WORKTABLE USING CAULKINGGUN AT
  WORKTABLE AND ASIDE F 26
      A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0 26.00 2340.
13 - INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
      A0 B0 GO A0 B0 P0 T10 A0 B0 P0 A0 1.00 1.00 •

TOTAL TMU 17880.
```

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help>. ?



MOST® COMPUTER SYSTEMS
Title and Method Description Sheet

Acnt. 39, 1 3
Date 5-16-83
Sign. YOUNG
Page 1

File Description

RIVET SHEETMETAL JOINT

TITLE (• REQUIRED)

SPECIAL CONDITIONS / • KEYPOINTS

• ACTIVITY: <u>RIVET</u>	<u>N.A.S.S.C.O. RIVETED JOINT</u>		
• OBJECT: <u>SHEETMETAL</u>	<u>* 20 GAUGE GALV. 8'X6'X35" LG. RIVETED JOINT</u>		
<input type="checkbox"/> IN <input type="checkbox"/> ON <input type="checkbox"/> FOR			
PRODUCT/EQUIPMENT:			
TOOL: <u>RIVETGUN</u>	DATA UNIT TO BE FILED	TEMPORARY FILE NAME/NO.	DELETE YES NO
• <input type="checkbox"/> TO <input checked="" type="checkbox"/> AT	WORK AREA LAYOUT	<u>Frt. W. 0.11</u>	<input type="checkbox"/> <input type="checkbox"/>
SIZE/CAPACITY:	MOST ANALYSIS	<u>Rvt. Jnt. M.O. 71</u>	<input type="checkbox"/> <input type="checkbox"/>
• WORK AREA ORIGIN: <u>SHOP</u>	COMBINED SUB-OP.		<input type="checkbox"/> <input type="checkbox"/>
WORK AREA NUMBER:	TITLE SHEET		<input type="checkbox"/> <input type="checkbox"/>
• UNIT: <u>PER. RIVET JOINT</u> 15 20150 2 1451 CPG: 4			
• OPERATOR:	DATE FILED	LOC. NO.	DATA COORDINATOR
• BEGINS:			

NO.	KEYWORD / METHOD DESCRIPTION	< SIMO > (PF) F
1.	PLACE SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE	
2	PLACE SHEETMETAL FROM WORKTABLE TO WORKTABLE (TURN OVER) AT WORKTABLE F-6	
	PLACE RIVET HOLE GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F-4	
4	MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKHOLE AND ASIDE P.F.-22	
5	FASTEN 5/32 DRILL-BIT FROM WORKTABLE TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE	
6	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F-22	
7	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F-22	
8	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F-22	
9	POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F-22	
10	OPERAT RIVETGUN AT WORKTABLE PROCESS F-22	
11	POSITION CAULKING GUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F-26	
12	GRIP SEALANT TO RIVET AT WORKTABLE USING CAULKING GUN AT WORKTABLE AND ASIDE F-26	
13	INSPECT SHEETMETAL AT WORKTABLE 7 POINTS	

SHEET METAL RIVITED JOINT

19" X 14" X 41" LG. RIVITED JOINT

Total T.M.U. 41440 24 MIN.

File Description ? RIVET SHEETMETAL JOINT

Output to line-Printer <Y or N> ? N

(39, 1)
 FIT .Wll RVTJNT,MO2
 RIVET SHEETMETAL FOR JOINT WITH RIVET GUN AT SHEETMETAL SHOP
 PER RIVET JOINT OFG: 4 16-MAY-83
 RIVETED JOINT ONLY
 * 18 GAUGE GALV. SHEETMETAL
 * 1119'X14'X41"L RIVETED JOINT
 FITTER BEGINS AT WORKTABLE

104

1	POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE	A1 B0 G1 A1 B0 P6 A0	1.00	90.
2	PLACE SHEETMETAL FROM WORKTABLE TO WORKTABLE [TURN OVER] AT WORKTABLE F 6	A1 B0 G1 A1 B0 P3 A0	6.00	360.
3	PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	A1 B0 G1 A1 B0 P3 A0	4.00	240.
4	MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 53 (4 5 6 7)	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (53)	1.00	2690.
5	FASTEN 5-32DRILLBIT FROM WORKTABLE TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE	A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0	1.00	140.
6	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 53	A1 B0 G1 A1 B0 P6 A0	53.00	4770.
7	OPERATE DRILLMOTOR PROCESS F 53	A1 B0 G1 H6 X6 IO A0	53.00	7420.
8	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 53	A1 B0 G1 A1 B0 P6 A0	53.00	4770.
9	POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 53	A1 B0 G1 A1 B0 P6 A0	53.00	4770.
10	OPERATE RIVETGUN PROCESS F 53	A1 B0 G1 M6 X3 IO A0	53.00	5830.
11	POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 57	A1 B0 G1 A1 B0 P6 A0	57.00	5130.
12	GRIP SEALANT TO RIVET AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE F 57	A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0	57.00	5130.
13	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS	A0 B0 GO A0 R0 P0 T10 A0 B0 P0 A0	1.00	100
TOTAL TMU				41440.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help>. ?

SHEET METAL ACCESS COVER

6" x 12" x 10" x 4" ACCESS PLATE

FAB	50,520
MARK OUT	12,756
TOTAL TMU.	63,270

File Description ? MARK OUT ACCESS COVER AND BACK-UP PLATES

Output to line-Printer <Y or N> ? N

```
( 39, 1)
FIT      • W11                      ACOVER.M01
      MARK OUT .ACCESS COVER AND BACK-UP PLATES WITH AWL AT SHEETMETAL
- SHOP
PER COVER AND PLATE                      OFG: 4   26-MAY-83
      NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATE
      * 11 GAUGE GALV. SHEETMETAL
      * ACCESS COVER 6'X12'X10'X4'
      * MARK OUT ACCESS COVER WITH TEMPLATE
      * MARK OUT BACK-UP STRIPS WITHOUT TEMPLATE
      FITTER BEGINS AT WORKTABLE

1 MOUE 11 GAUGE SHEETMETAL SCRAP FROM SCRAPBIN TO
  WORKTABLE
                                A152B3  G1  A152B3  P1  A0              1.00      3120.
2 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 5 STEPS
                                A1  B0  G1  A10  B0  P6  A0              1.00      180.
3 POSITION WEIGHT FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 3 STEPS F 2
                                A1  B0  G1  A6  B0  P6  A0              2.00      280.
4 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5
  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7
                                A1  B0  G1  (A1  B0  P1  R16 )A1  B0  P1  A0  (4)  1.00      760.
5 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 2 STEPS F 13
                                A1  B0  G1  A3  B0  P6  A0              13.00     1430.
6 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
  HAMMER AT WORKTABLE AND ASIDE PF 13 ( 4 5 6 7 )
                                A1  B0  G1  (A1  B0  P0  P3 )A1  B0  P1  A0  (13)  1.00      560.
7 REPLACE WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE
  WITH 3 STEPS F 2
                                A1  B0  G1  A6  B0  P3  A0              2.00      220.
8 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO
  WORKTABLE ATIH 5 STEPS
                                A1  B0  G1  A10  B0  P3  A0              1.00      150.
9 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
  STEEL-TAPE AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
                                A1  B0  G1  (A1  B0  P1  M32 )A1  B0  P1  A0  (6)  1.00     2080.
10 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
                                A1  B0  G1  (A1  B0  P1  R3 )A1  B0  P1  A0  (6)  1.00      340.
11 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING
  REDPEN AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )
                                A1  B0  G1  (A1  B0  P1  R3 )A1  B0  P1  A0  (10)  1.00      540.
12 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
  ASIDE PF 13 ( 4 5 6 7 )
                                A1  B0  G1  (A1  B0  P1  R3 )A1  B0  P1  A0  (13)  1.00      690.
13 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 ( 4 5 6 7
  )
```


	A1	B0	G1	(A1	B0	P1	R3	)A1	B0	P1	A0	(26)	1.00	1340.
14	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2													
	A1	B0	G1	A6	B0	P3	A0						2.00	220.
15	MOUE CART FROM WORKTABLE TO 14FT. SHEAR													
	A1	B0	G1	A81	B0	P1	A0						1.00	840.
													TOTAL TMU	12750.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

127.50

File Description ? SHEAR SHEETMETAL FOR ACCESS COVER

Output to line-printer <Y or N> ? N

(39, 1)

FIT ● W11

ACOVER.M02

SHEAR SHEETMETAL FOR ACCESS COVER WITH 14FT. SHEAR AT SHEETMETAL
SHOP

PER COVER

OFG: 4 26-MAY-83

NASSCO SHEETMETAL ACCESS COVER

* 11 GAUGE GALV. SHEETMETAL

* ACCESS COVER 6'X12'X10'X4'

* SHEAR BACK-UP PLATES AND ACCESS COVER

FITTER BEGINS AT 14FT. SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT. SHEAR TO
14FT.SHEAR WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 2

A1 B0 G1 M1 X3 I0 A0 2.00 120.

3 POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR WITH
2 STEPS F 9

A1 B0 G1 A3 B0 P6 A0 9.00 990.

4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 9

A1 B0 G1 M1 X3 I0 A0 9.00 540.

5 REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT
14FT.SHEAR WITH 10 STEPS F 2

A1 B0 G1 A16 B0 P3 A0 2.00 4 2 0 .

6 MOUE CART FROM 14FT.SHEAR TO WORKTABLE

A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 3220.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR ACCESS HOLE FOR ACCESS COVER

output to line-printer <Y or N> ? N

```
( 39, 1)
FIT      .W11                      ACOVER.MO3
      SHEAR ACCESS HOLE FOR ACCESS COVER WITH UNI-SHEAR AT SHEETMETAL
SHOP
PER ACCESS COVER                      OFG: 4   27-MAY-83
      NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES
      * 11 GAUGE GALV. SHEETMETAL
      * ACCESS COVER 6'X12'X10'X4'
      * PUNCH OUT HOLE FOR UNI-SHEAR ACCESS
      FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS F 2
                        A1  B0  G1  A6  B0  P3  A0          2.00      220.
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
                        A96 B0  G1  A96 B3  P1  A0          1.00      1970.
3 PLACE CHISEL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
  AND ASIDE F 4
                        A1  B0  G1  A1  B0  P3  A0          4.00      240.
4 FASTEN CHISEL TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
  HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
                        A1  B0  G1  (A1 B0 P0 F3 )A1 B0 P1  A0  (4)  1.00      200 .
5 POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 3 STEPS
                        A1  B0  G1  A6  B0  P6  A0          1.00      140.
6 OPERATE UNISHEAR AT WORKTABLE PROCESS F 4
                        A1  B0  G1  M6  X173I0  A0          4.00      7240.
7 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
  WITH 4 STEPS F 2
                        A1  B0  G1  A6  B0  P3  A0          2.00      220.
8 MOUE CART FROM WORKTABLE TO SPOTWELDER
                        A1  B0  G1  A54  B0  P1  A0          1.00      570.

                                           TOTAL TMU      10800.
```

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

14020

File Description ? SPOTWELD SHEETMETAL FOR ACCESS COVER

utput to line-printer <Y or N> ? N

(39, 1)

FIT .W11 ACOVER.MO4
WELD (SPOT) SHEETMETAL FOR ACCESS COVER WITH SPOT WELDER AT
SHEETMETAL SHOP
PER ACCESS COVER OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES

* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 6'X12'X10'X4'
* SPOT WELD BACK-UP STRIPS TO --
* -- SHEETMETAL ACCESS HOLE

FITTER BEGINS AT SPOTWELDER

1	MOUE VISEGRIPS FROM WORKTABLE TO SPOTWELDER		
	A54 B3 G1 A54 B0 P1 A0	1.00	1130.
2	POSITION SHEETMETAL FROM CART AT SPOTWELDER TO SPOTWELDER WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
3	GRIP SHEETMETAL [BACK-UP PLATES] AT SPOTWELDER TO SHEETMETAL AT SPOTWELDER USING VISEGRIPS AT SPOTWELDER AND ASIDE PF 7 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (7)	1.00	390.
4	POSITION SHEETMETAL FROM SPOTWELDER TO SPOTWELDER WITH 2 STEPS F 19		
	A1 B0 G1 A3 B0 P6 A0	19.00	2090.
5	OPERATE SPOTWELDER-FOOTPEDAL PROCESS F 19		
	A1 B0 G1 M6 X6 I0 A0	19.00	2660.
6	REPLACE SHEETMETAL2 FROM SPOTWELDER TO CART AT SFOTWELDER WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
7	MOUE CART FROM SPOTWELDER TO WORKTABLE		
	A1 B0 G1 A54 B3 P1 A0	1.00	600.

TOTAL TMU 7260.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

21,280

}i"r

File Description ? DRILL AND TAP SHEETMETAL FOR ACCESS COVER

Output to line-printer <Y or N> ? N

```
( 39, 1)
FIT .W11 ACOVER.M05
TAP AND DRILL SHEETMETAL FOR ACCESS COVER WITH TAP AT SHEETMETAL
SHOP
PER ACCESS COVER OFG: 4 27-MAY-83
NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES
* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 6'X12'X10'X4'
* DRILL OUT ACCESS COVER WITH OVER SIZE--
* --BIT 5/16 AFTER TAPING BACK-UP PLATES
FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL FROM CART AT WORKTABLE TO
  WORKTABLE WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P6 A0 2.00 280.
2 POSITION SHEETMETAL [ACCESS COVER] TO SHEETMETAL
  [ACCESS HOLE] AT WORKTABLE WITH 2 STEPS
      A1 B0 G1 A3 B0 P6 A0 1 0 0 110.
3 FASTEN 7.32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3
  WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
      A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.
4 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 3 STEPS F 4
      A1 B0 G1 A6 B0 P6 A0 4.00 560.
5 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 4
      A1 B0 G1 M6 X6 I0 A0 4.00 560.
6 MOUE TAPINGMOTOR FROM TOOLROOM TO WORKTABLE
      A96 B0 G1 A96 B3 P1 A0 1.00 1970.
7 FASTEN 1.4TAP TO TAPINGMOTOR AT WORKTABLE 3 WRIST-TURNS
  USING CHUCKKEY AND ASIDE
      A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00 140.
8 POSITION TAPINGMOTOR FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 4
      A1 B0 G1 A1 B0 P6 A0 4.00 360.
9 OPERATE DRILLMOTOR [TAPINGMOTOR] AT WORKTABLE PROCESS F
  4
      A1 B0 G1 M6 X6 I0 A0 4.00 560.
10 POSITION BOLT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
  F 4
      A1 B0 G1 A1 B0 P6 A0 4.00 360.
11 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS
  USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 F24 )A1 B0 P1 A0 (4) 1.00 1160.
12 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 9
      A1 B0 G1 A1 B0 P6 A0 9.00 810.
13 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 9
      A1 B0 G1 M6 X6 I0 A0 9.00 1260.
14 LOOSEN BOLT FROM SHEETMETAL AT WORKTABLE 10 WRIST-TURNS
  USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 L24 )A1 B0 P1 A0 (4) 1.00 1160.
15 REPLACE SHEETMETAL [ACCESS COVER] FROM SHEETMETAL AT
  WORKTABLE TO SHEETMETAL [ASSEMBLY] AT WORKTABLE WITH 2
```

STEPS			
	A1 B0 G1 A3 B0 P3 A0	1.00	80.
16	OPERATE DRILLMOTOR [TAPINGMOTOR] AT WORKTABLE PROCESS F 9		
	A1 B0 G1 M6 X6 IO A0	9.00	1260.
17	LOOSEN 7.32DRILL-BIT FROM DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE		
	A1 B0 G1 A1 B0 P3 L6 A1 B0 P1 A0	1.00	140.
18	FASTEN 5.16DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE		
	A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0	1.00	140.
19	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 13		
	A1 B0 G1 A3 B0 P6 A0	13.00	1430.
20	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 13		
	A1 B0 G1 M6 X6 IO A0	13.00	1820.
TOTAL TMU			14300.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

35,580

File Description ? CUT GASKET FOR ACCESS COVER

Output to line-printer <Y or N> ? N

```
( 39, 1)
FIT .W11 ACOVER.MO6
CUT GASKET FOR ACCESS COVER WITH UTILITY KNIFE AT SHEETMETAL SHOP
PER ACCESS COVER OFG: 4 27-MAY-83
NASSCO SHEETMETAL ACCESS COVER AMD BACK-UP PLATES
* 1 GAUGE GALV. SHEETMETAL
* ACCESS COVER 6'X12*X10'X4'
* PUNCH OUT BOLT HOLES
FITTER BEGINS AT WORKTABLE

1 MOVE SHEETMETAL [ACCESS COWER] , BLACKPEN [INK PEN] ,
  FROM WORKTABLE TO GASKET-CUTTING-TABLE
      A1 B0 G1 A152B0 P1 A0 1.00 1550.
2 MOUE UTILITY-KNIFE , 3 / 8HOLE PUNCH , MALLET , FROM
  TOOLROOM TO GASKET-CUTTING-TABLE-
      A96 B0 G1 A96 B0 P1 A0 1.00 1940.
3 PLACE RUBBER FROM SHELF AT GASKET-CUTTING-TABLE TO
  GASKET-CUTTING-TABLE WITH 3 STEPS
      A1 B0 G1 A6 B0 P3 A0 1.00 110.
4 PLACE SHEETMETAL2 [ACCESS COVER] FROM
  GASKET-CUTTING-TABLE TO RUBBER AT GASKET-CUTTING-TABLE
  WITH 3 STEPS
      A1 B0 G1 A6 B0 P3 A0 1.00 110.
5 CUT RUBBER FROM SHEETMETAL [ACCESS COVER] AT
  GASKET-CUTTING-TABLE 1 CUT USING UTILITY-KNIFE AT
  GASKET-CUTTING-TABLE AND ASIDE PF 4 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (4) 1.00 240.
6 REPLACE SHEETMETAL FROM RUBBER AT GASKET-CUTTING-TABLE
  TO GASKET-CUTTING-TABLE WITH 2 STEPS
      A1 B0 G1 A3 B0 P3 A0 1.00 80.
7 POSITION 3 / 8HOLE PUNCH FROM GASKET-CUTTING-TABLE TO
  RUBBER AT GASKET-CUTTING-TABLE F 13
      A1 B0 G1 A1 B0 P6 A0 13.00 1170.
8 FASTEN HOLE PUNCH TO RUBBER AT GASKET-CUTTING-TABLE 2
  STRIKES USING MALLET AT GASKET-CUTTING-TABLE AND ASIDE
  P F 1 3 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (13) 1.00 950.
9 MOVE SHEETMETAL [ACCESS PLATE], RUBBER , FROM
  GASKET-CUTTING-TABLE TO WORKTABLE
      A1 B0 G1 A152B3 P1 A0 1.00 1580.
10 MOVE UTILITY-KNIFE , MALLET , HOLE PUNCH , FROM
  GASKET-CUTTING-TABLE TO TOOLROOM
      A152B0 G1 A96 B0 P1 A0 1.00 2500 .

TOTAL TMU 10230.
```

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

45,810

File Description ? BEBURR ACCESS HOLE AND ACCESS COVER

output to line-printer <Y or N> ? N

```
( 39, 1)
FIT      .W11                      ACOVER.M07
      DEBURR ACCESS HOLE AND ACCESS COVER WITH FILE AT SHEETMETAL SHOP
PER ACCESS COVER                      OFG: 4 27-MAY-83
      NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES
      * 11 GAUGE GALV. SHEETMETAL
      * ACCESS COVER 6'X12'X10'X4'
      * GLUE GASKET TO ACCESS COVER
      FITTER BEGINS AT WORKTABLE

1 MOVE GLUE AND BRUSH FROM TOOLROOM TO WORKTABLE
      A96 B0 G1 A96 B3 P1 A0          1.00      1970.
2 DEBURR SHEETMETAL [ACCESS COVER] AT WORKTABLE 1
  ARM-STROKE USING FILE AT WORKTABLE AND ASIDE PF 15 ( 4
  5 6 7 )
      A1 B0 G1 (A1 B0 P1 C1 )A1 B0 P1 A0 (15)  1.00      490.
3 DEBURR SHEETMETAL [ACCESS HOLE] AT WORKTABLE 1
  ARM-STROKE USING FILE AT WORKTABLE AND ASIDE PF 15 ( 4
  5 6 7 )
      A1 B0 G1 (A1 B0 P1 C1 )A1 B0 P1 A0 (15)  1.00      490.
4 GRIP GLUE TO RUBBER2 AT WORKTABLE 1 SQUARE FEET USING
  BRUSH AND ASIDE
      A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0          1.00      90.
5 PLACE SHEETMETAL [ACCESS COVER] FROM WORKTABLE TO
  SHEETMETAL [ACCESS HOLE] AT WORKTABLE WITH 4 STEPS
      A1 B0 G1 A6 B0 P3 A0          1.00      110.
6 POSITION BOLT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
  10 WRIST-TURNS USING WRENCH AND ASIDE PF 4 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P6 A0 )          1.00      300.
7 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS
  USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 F24 )A1 B0 P1 A0 (4)  1.00      1160.
8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS
      A0 B0 GO A0 B0 PO T10 A0 B0 P0 A0          1.00      100.

                                TOTAL TMU          4710.
```

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

56520

6320

SHEET METAL ACCESS COVER & ACCESS PL

20" x 30" x 25" x 15" ACCESS COVER & BACKUP PL

<u>FAB .</u>	<u>82,120</u>	<u>53 MIN.</u>
<u>MARK OUT</u>	<u>17,530</u>	<u>11 MIN.</u>
<u>TOTAL TMU</u>	<u>106,650</u>	<u>64 MIN.</u>

File Description ? MARK OUT ACCESS COVER AND BACK UP PLATES

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

ACOVER.M20

MARK OUT ACCESS COVER AND BACK UP PLATES WITH AWL AT SHEETMETAL
SHOP

PER ACCESS COVER

OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK UP PLATES

* 11 GAUGE GALV. SHEETMETAL

* ACCESS COVER 20'X30'X25'X15'

* MARK OUT USING TEMPLATE

FITTER BEGINS AT WORKTABLE

1	MOUE 11GAUGE SHEETMETALSCRAP FROM SCRAPBIN TO WORKTABLE		
	A152B3 G1 A152B3 P1 A0	1.00	3120,
2	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 5 STEPS		
	A1 B0 G1 A10 B0 P6 A0	1.00	180:
3	POSITION WEIGHTS FROM WORKTABLE TO SHEETMETAL AND TEMPLATE AT WORKTABLE WITH 3 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
4	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (4)	1.00	760.
5	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 37		
	A1 B0 G1 A3 B0 P6 A0	37.00	4070.
6	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 34 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (34)	1.00	1400,
7	REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220,
8	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 5 STEPS		
	A1 B0 G1 A10 B0 P3 A0	1.00	150.
9	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (6)	1.00	2080.
10	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (6)	1.00	340.
11	MARK CUT LINES ONSHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN N AT WORKTABLE AND ASIDE PF 10 (4 5 6 7)		
	A1 B0) G1 (A1 B0 P1 R16)A1 B0 P1 A0 (10)	1.00	1840.
12	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 13 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (13)	1.00	690.
13	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (26)	1.00	1340.
14	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		

WITH 4 STEPS F 2

	A1	B0	G1	A6	B0	P3	A0	2.00	220 .
15 MOUE CART FROM WORKTABLE	TO	14FT.	SHEAR						
	A1	B0	G1	A81	B0	P1	A0	1.00	840.

TOTAL TMU 17530.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

17,530

File Description ? SHEAR SHEETMETAL FOR ACCESS COVER

Output to line-printer <y or N> ? N

(39, 1)

FIT .W11

ACOVER.M21

SHEAR SHEETMETAL FOR ACCESS COVER WITH 14FT. SHEAR AT SHEETMETAL
SHOP

PER ACCESS COVER

OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES

* 11 GAUGE GALV. SHEETMETAL

* ACCESS COVER 20'X30'X25'X15'

* SHEAR ACCESS COVER AND BACK-UP PLATES

FITTER BEGINS AT 14FT.SHEAR

1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO
14FT.SHEAR WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 280.

2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 2

A1 B0 G1 M1 X3 I0 A0 2.00 120.

3 POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR WITH
2 STEPS F 9

A1 B0 G1 A3 B0 P6 A0 9.00 990.

4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 9

A1 B0 G1 M1 X3 I0 A0 9.00 540.

5 REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT
14FT.SHEAR WITH 10 STEPS F 2

A1 B0 G1 A16 B0 P3 A0 2.00 4 2 0 .

6 MOVE CART FROM 14FT.SHEAR TO WORKTABLE

A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 3220.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR ACCESS HOLE FOR ACCESS COVER

Output to line-Printer <Y or N> ? N

```
( 39, 1)
FIT  • W11                                ACOVER.M22
SHEAR ACCESS HOLE FOR ACCESS COVER WITH UNI-SHEAR AT SHEETMETAL
SHOP
PER ACCESS COVER                        OFG: 4 27-MAY-83
NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES
* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 30'X20'X25'X15'
* PUNCH HOLE IN; SHEETMETAL WITH CHISEL --
t --FOR ACCESS WITH UNI-SHEAR
FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE
  WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0      2.00      220.
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE
      A96B0 G1 A96B3 P1 A0      1.00      1970.
3 PLACE CHISEL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
  AND ASIDE WITH 2 STEPS F 4
      A1 B0 G1 A3 B0 P3 A0      4.00      320.
4 FASTEN CHISEL TO SHEETMETAL AT WORKTABLE 1 STRIKE USING
  HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (4) 1.00      200.
5 POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 2 STEPS
      A1 B0 G1 A3 B0 P6 A0      1.00      110.
6 OPERATE UNISHEAR AT WORKTABLE PROCESS F 7
      A1 B0 G1 M6 X173I0 A0      7.00      12670.
7 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE
  WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P3 A0      2.00      220.
8 MOVE CART FROM WORKTABLE TO SPOTWELDER
      A1 B0 G1 A54 B0 P1 A0      1.00      570.

TOTAL TMU      16280.
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

19,500

File Description ? SPOTWELD SHEETMETAL FOR ACCESS COVER

Output to line-Printer <Y or N> ? N

(39, 1)

FIT 0 W11

ACOVER.M23

WELD SHEETMETAL FOR ACCESS COVER WITH SPOT WELDER A-f SHEETMETAL
SHOP

PER ACCESS COVER

OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES

* 11 GAUGE GALV. SHEETMETAL

* ACCESS COVER 20'X30'X25'15'

* SPOT WELD BACK-UP PLATES TO ACCESS HOLE

FITTER BEGINS AT WORKTABLE

1 MOVE VISEGRIPS FROM WORKTABLE TO SPOTWELDER

A1 B0 G1 A54 B0 P1 A0

1.00 570.

2 POSITION SHEETMETAL FROM CART AT WORKTABLE TO

WORKTABLE WITH 4 STEPS F 4

A54 B3 G1 A6 B0 P6 A0

4.00 2800.

3 GRIP SHEETMETAL [BACK-UP PLATES] TO SHEETMETAL

[ACCESS HOLE] AT SPOTWELDER USING VISEGRIPS AND ASIDE

P F 7 (4 5 6 7)

A54 B0 G1 (A1 B0 P3 C1)A1 B0 P1 A0 (7)

1.00 920.

4 POSITION SHEETMETAL FROM SPOTWELDER TO SPOTWELDER WITH

1 STEP F 64

A1 B0 G1 A3 B0 P6 A0

64.00 7040.

5 OPERATE SPOTWELDER-FOOTPEDAL PROCESS F 64

A1 B0 G1 M6 X6 IO A0

64.00 8960.

6 REPLACE SHEETMETAL2 FROM SPOTWELDER TO CART AT

SPOTWELDER WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0

2.00 220.

7 MOVE CART FROM SPOTWELDER TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0

1.00 600.

TOTAL TMU 21110.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

40610

File Description ? DRILL AND TAP SHEETMETAL FOR ACCESS COVER

Output to line-printer <Y or N> ? N

```
( 39, 1)
FIT .W11                                ACOVER.M24
TAP AND DRILL SHEETMETAL FOR ACCESS COVER WITH TAP AT SHEETMETAL
SHOP
PER ACCESS COVER                        OFG: 4 27-MAY-83
NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES
* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 20'30'X25'X15'
* DRILL OUT ACCESS COVER WITH OVERSIZE--
* --DRILL BIT (5/16) AFTER TAPING--
* --BACK-UP PLATES
FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL FROM CART AT WORKTABLE TO
  WORKTABLE WITH 4 STEPS F 2
      A1 B0 G1 A6 B0 P6 A0                2.00      280.
2 POSITION SHEETMETAL [ACCESS COVER] TO SHEETMETAL
  [ACCESS HOLE] AT WORKTABLE WITH 4 STEPS
      A1 B0 G1 A6 B0 P6 A0                1.00      140.
3 FASTEN 7.32DRILL-BIT 70 DRILLMOTOR AT WORKTABLE 3
  WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
      A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0      1.00      140.
4 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 4 STEPS F 4
      A1 B0 G1 A6 B0 P6 A0                4.00      560.
5 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 4
      A1 B0 G1 M6 X6 Id A0                4.00      560.
6 MOVE TAPINGMOTOR FROM TOOLROOM TO WORKTABLE
      A96 B0 G1 A96 B3 P1 A0              1.00     1970.
7 FASTEN 1.4TAP TO TAPINGMOTOR AT WORKTABLE 3 WRIST-TURNS
  USING CHUCKKEY AT WORKTABLE AND ASIDE
      A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0      1.00      140.
8 POSITION TAPINGMOTOR FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 1 STEP F 4
      A1 B0 G1 A3 B0 P6 A0                4.00      440.
9 OPERATE DRILLMOTOR [TAPINGMOTOR] AT WORKTABLE PROCESS F
  4
      A1 B0 G1 M6 X6 I0 A0                4.00      560.
10 POSITION BOLT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE
  F 4
      A1 B0 G1 A1 B0 P6 A0                4.00      360.
11 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS
  USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 F24 )A1 B0 P1 A0 (4) 1.00     1160.
12 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE WITH 2 STEPS F 29
      A1 B0 G1 A3 B0 P6 A0                29.00     3190.
13 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 29
      A1 B0 G1 M6 X6 I0 A0                29.00     4030.
14 LOOSEN BOLT FROM SHEETMETAL AT WORKTABLE 10 WRIST-TURNS
  USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 L24 )A1 B0 P1 A0 (4) 1.00     1160.
15 REPLACE SHEETMETAL [ACCESS COVER] FROM WORKTABLE TO
```

SHEETMETAL [ASSEMBLY] AT WORKTABLE WITH 2 STEPS												
		A1	B0	G1	A3	B0	P3	A0		1.00	80.	
16	OPERATE DRILLMOTOR [TAPINGMOTOR] AT WORKTABLE PROCESS F 29											
		A1	B0	G1	M6	X6	I0	A0		29.00	4060.	
17	LOOSEN 7.32DRILL-BIT FROM DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE											
		A1	B0	G1	A1	B0	P3	L6	A1	B0	P1	A0
18	FASTEN 5.16DRILL-BIT FROM WORKTABLE TO DRILLMOTOR 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE									1.00	140.	
		A1	B0	G1	A1	B0	P3	F6	A1	B0	P1	A0
19	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 29									1.00	140.	
		A1	B0	G1	A1	B0	P6	A0		29.00	2610.	
20	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 29											
		A1	B0	G1	M6	X6	I0	A0		29.00	4060.	
TOTAL TMU											23810.	

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

66420

File Description ? CUT GASKET FOR ACCESS COVER

Output to line-printer <Y or N> ? N

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( 39, 1)
FIT .W11 ACOVER.M25
CUT GASKET FOR ACCESS COVER WITH UTILITY-KNIFE AT SHEETMETAL SHOP
PER ACCESS COVER OFG: 4 27-MAY-83
NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES
* 11 GAUGE GALV. SHEETMETAL
* ACCESS COVER 20'X30'X25'X15'
* PUNCH OUT BOLT HOLES
FITTER BEGINS AT WORKTABLE

1 MOVE BLACKPEN [INK PEN] , SHEETMETAL [ACCESS COVER3
  FROM WORKTABLE TO GASKET-CUTTING-TABLE
      A1 B0 G1 A152B0 P1 A0 1.00 1550.
2 MOVE UTILITY-KNIFE , 3 / 8HOLE PUNCH , MALLET FROM
  TOOLROOM TO GASKET-CUTTING-TABLE
      A96 B0 G1 A96 B0 P1 A0 1.00 1940.
3 PLACE RUBBER FROM SHELF AT GASKET-CUTTING-TABLE TO
  GASKET-CUTTING-TABLE WITH 3 STEPS
      A1 B0 G1 A6 B0 P3 A0 1.00 110.
4 PLACE SHEETMETAL [ACCESS COVER] FROM
  GASKET-CUTTING-TABLE TO RUBBER AT GASKET-CUTTING-TABLE
  WITH 3 STEPS
      A1 B0 G1 A6 B0 P3 A0 1.00 110.
5 CUT RUBBER AT GASKET-CUTTING-TABLE 1 CUT USING
  UTILITY-KNIFE AND ASIDE PF 4 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (4) 1.00 240.
6 REPLACE SHEETMETAL FROM RUBBER AT GASKET-CUTTING-TABLE
  TO GASKET-CUTTING-TABLE WITH 2 STEPS
      A1 B0 G1 A3 B0 P3 A0 1.00 80.
7 POSITION 3 / 8HOLE-PUNCH FROM GASKET-CUTTING-TABLE TO
  RUBBER AT GASKET-CUTTING-TABLE F 33
      A1 B0 G1 A1 B0 P6 A0 33.00 2970.
8 FASTEN HOLE PUNCH TO RUBBER AT GASKET-CUTTING-TABLE 2
  STRIKES USING MALLET AT GASKET-CUTTING-TABLE AND ASIDE
  PF33 (4567 )
      A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (33) 1.00 2350.
9 MOVE SHEETMETAL [ACCESS PLATE] AND RUBBER FROM
  GASKET-CUTTING-TABLE TO WORKTABLE
      A1 B0 G1 A152B3 P1 A0 1.00 1580.
10 MOVE HOLE-PUNCH , UTILITY-KNIFE AND MALLET FROM
  GASKET-CUTTING-TABLE TO TOOLROOM
      A152B0 G1 A96 B0 P1 A0 1.00 2500,

TOTAL TMU 13430,
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Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

79850

File Description ? DEBURR ACCESS HOLE AND COVER

Output to line-printer <Y or N> ? N

(39, 1)

FIT 0 W11

ACOVER.M26

DEBURR ACCESS HOLE AND COVER WITH FILE AT SHEETMETAL SHOP

PER ACCESS COVER

OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES

* 11 GAUGE GALV. SHEETMETAL

* ACCESS COVER 20'X30'X25'X15'

* GLUE GASKET TO ACCESS PLATE

FITTER BEGINS AT WORKTABLE

1	MOVE GLUE , BRUSH FROM TOOLROOM TO WORKTABLE		
	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
2	DEBURR SHEETMETAL [ACCESS COVER] AT WORKTABLE 1		
	ARM-STROKE USING FILE AT WORKTABLE AND ASIDE PF 40 (4		
	5 6 7)		
	A1 B0 G1 (A1 B0 P1 C1)A1 B0 P1 A0 (40)	1.00	1240.
3	DEBURR SHEETMETAL [ACCESS HOLE] AT WORKTABLE 1		
	ARM-STROKE USING FILE AT WORKTABLE AND ASIDE PF 40 (4		
	5 6 7)		
	A1 B0 G1 (A1 B0 P1 C1)A1 B0 P1 A0 (40)	1.00	1240.
4	MOVE RUBBER FROM GASKET-CUTTING-TABLE TO WORKTABLE		
	A152B0 G1 A152B3 P1 A0	1.00	3090 .
5	GRIP GLUE TO RUBBER AT WORKTABLE 2 SQUARE FEET USING		
	BRUSH AND ASIDE		
	A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0	1.00	90.
6	PLACE SHEETMETAL [ACCESS COVER] FROM WORKTABLE TO		
	SHEETMETAL [ACCESS HOLE] AT WORKTABLE WITH 2 STEPS		
	A1 B0 G1 A3 B0 P3 A0	1.00	80.
7	POSITION BOLT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE		
	10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE PF		
	4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P6 A0)	1.00	300 .
8	FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS		
	USING WRENCH AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P3 F24)A1 B0 P1 A0 (4)	1.00	1160.
9	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS		
	A0 B0 GO A0 B0 P0 T10 A0 B0 P0 A0	1.00	100.
	TOTAL TMU		9270.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

89120

SHEET METAL BLANK END

. 8" x 6" BLANK END PIECE

<u>FAB</u>	<u>10,220</u>	<u>6 MIN.</u>
<u>MARK OUT</u>	<u>4,870</u>	<u>3 MIN</u>
<u>TOTAL TMU.</u>	<u>15,090</u>	<u>9 MIN</u>

File Description ? HARK OUT BLANK END

Output to line-printer <Y or N> ? N

(39, 1)

FIT ● W11

BLKEND.MO1

MARK OUT BLANK END WITH AWL AT SHEETMETAL SHOP

PER BLANK END

OFG: 4 31-MAY-83

NASSCO SHEETMETAL BLANK END

* 20 GAUGE GALV. SHEETMETAL

* 8'X6' BLANK END PIECE

* MARK OUT WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (4)	1.00		1400.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (12)	1.00		640.
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6			
	A1 B0 G1 A1 B0 P6 A0	6.00		540.
4	MARK LINES ON SHEETMEAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6)	1.00		1120.
5	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)			
	A1 B0 G1 (A1 B0 P1 R6)A1 B0 P1 A0 (4)	1.00		360.
6	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS			
	A1 B0 G1 A6 B0 P3 A0	1.00		110,
7	MOVE CART FROM WORKTABLE TO SMALLSHEAR			
	A1 B0 G1 A67 B0 P1 A0	1.00		700.
			TOTAL TMU	4870.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR BLANK END

Output to line-printer <Y or N> ? N

(39, 1)

FIT *W11

BLKEND.M02

SHEAR SHEETMETAL FOR BLANK END WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP

PER BLANK END

OFG: 4 06-JUL-83

NASSCO SHEETMETAL BLANK END

* 20 GAUGE GALV. SHEETMETAL

* 8'X6' BLANK END PIECE

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

A1 B0 G1 M1 X6 I0 A0 1.00 90.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SHALLSHEAR

A1 B0 G1 A1 B0 P6 A0 1.00 90.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

A1 B0 G1 M1 X6 I0 A0 1.00 90.

5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT
SMALLSHEAR WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM SMALLSHEAR TO LEAFBRAKE [NOTCH PUNCH]

A1 B0 G1 A42 B0 P1 A0 1.00 450.

TOTAL TMU 970.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR CORNERS FOR BLANK END

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

BLKEND.M03

SHEAR CORNERS FOR BLANK END WITH NOTCH PUNCH AT SHEETMETAL SHOP
PER BLANK END OFG: 4 06-JUL-83

NASSCO SHEETMETAL BLANK END

* 20 GAUGE GALV. SHEETMETAL

* 8'X6' BLANK END PIECE

FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE [NOTCH
PUNCH] TO LEAFBRAKE [NOTCH PUNCH] WITH 4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 OPERATE [NOTCH PUNCH] LEAFBRAKE-LEVER PROCESS

A1 B0 G1 M6 X16 I0 A0 1.00 240.

3 POSITION SHEETMETAL FROM LEAFBRAKE [NOTCH PUNCH] TO
LEAFBRAKE [NOTCH PUNCH] WITH 3 STEPS F 3

A1 B0 G1 A6 B0 P6 A0 3.00 420.

4 OPERATE [NOTCH PUNCH] LEAFBRAKE-LEVER PROCESS F 3

A1 B0 G1 M6 X16 I0 A0 3.00 720.

5 REPLACE SHEETMETAL2 FROM LEAFBRAKE [NOTCH PUNCH] TO
CART AT LEAFBRAKE [NOTCH PUNCH] WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM LEAFBRAKE [NOTCH PUNCH] TO LEAFBRAKE
WITH 5 STEPS

A1 B0 G1 A10 B0 P1 A0 1.00 130.

TOTAL TMU 1760.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

2730

(39, 1)

FIT .W11

BLKEND.M04

BEND PARTIAL BENDS FOR BLANK END WITH LEAFBRAKE AT SHEETMETAL

SHOP

PER BLANK END

OFG: 4 31-MAY-83

NASSCO SHEETMETAL BLANK END

* 20 GAUGE GALV. SHEETMETAL

* 8'X6' BLANK END PIECE

* BEND FLANGES UP 45 DEGREES PARTIAL BEND

* COMPLETE BENDS TO 90DEGREES ON PANBRAKE

FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL2 FROM CART AT LEAFBRAKE TO
LEAFBRAKE WITH 4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 OPERATE LEAFBRAKE-LEVER PROCESS

A1 B0 G1 M6 X16 I0 A0 1.00 240.

3 POSITION SHEETMETAL2FROM LEAFBRAKE TO LEAFBRAKE F 3

A1 B0 G1 A1 B0 P6 A0 3.00 270.

4 OPERATE LEAFBRAKE-LEVER PROCESS F 3

A1 B0 G1 H6 X16 I0 A0 3.00 720.

9 REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM LEAFBRAKE TO PANBRAKE

A1 B0 G1 A42 B0 P1 A0 1.00 450.

TOTAL TMU 1930.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <orH for help> ?

4660

File Description ? BEND SHEETMETAL UP 90 DEGREES FOR BLANK END

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

BLKEND.M05

BEND SHEETMETAL UP 90 DEGREES FOR BLANK END WITH PANBRAKE AT
SHEETMETAL SHOP

PER BLANK END

OFG: 4 06-JUL-83

NASSCG SHEETMETAL BLANK END

* 20 GAUGE GALV. SHEETMETAL

* 8'X6' BLANK END PIECE

* COMPLETE 90 DEGREE BENDS ON FLANGES

FITTER BEGINS AT PANBRAKE

1 POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE
WITH 4 STEPS

A1	B0	G1	A6	B0	P6	A0	1.00	140.
----	----	----	----	----	----	----	------	------

2 FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE 3
WRIST-TURNS USING WRENCH AT PANBRAKE AND ASIDE F 2

A1	B0	G1	A1	B0	P3	F6	A1	B0	P1	A0	2.00	280.
----	----	----	----	----	----	----	----	----	----	----	------	------

3 OPERATE PANBRAKE-LEVER PROCESS

A1	B0	G1	M6	X96	IO	A0	1.00	1040.
----	----	----	----	-----	----	----	------	-------

4 POSITION SHEETMETAL FROM PANBRAKE TO PANBRAKE F 3

A1	B0	G1	A1	B0	P6	A0	3.00	270.
----	----	----	----	----	----	----	------	------

5 OPERATE PANBRAKE-LEVER PROCESS F 3

A1	B0	G1	M6	X96	IO	A0	3.00	3120.
----	----	----	----	-----	----	----	------	-------

6 REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE
WITH 4 STEPS

A1	B0	G1	A6	B0	P3	A0	1.00	110.
----	----	----	----	----	----	----	------	------

7 MOVE CART FROM PANBRAKE TO WORKTABLE

A1	B0	G1	A54	B3	P1	A0	1.00	600.
----	----	----	-----	----	----	----	------	------

TOTAL TMU 5560 .

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

10220

SHEET METAL BLANK END

20" x 14" BLANK END PIECE

<u>FAB</u>	<u>10420</u>	<u>6 MIN.</u>
<u>MARK OUT</u>	<u>5150</u>	<u>3 MIN.</u>
<u>TOTAL</u>	<u>15,570</u>	<u>9 MIN.</u>

File Description ? MARK OUT BLANK END

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

BLKEND.M20

MARK OUT BLANK END WITH AWL AT SHEETMETAL SHOP

PER BLANK END

OFG: 4 31-MAY-83

NASSCO SHEETMETAL BLANK END

* 18 GAUGE GALV. SHEETMETAL

* 20'X14' BALNK END PIECE

* MARK OUT WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7) A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0 (4)	1.00	1400.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 12 (4 5 6 7 _) A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (12)	1.00	640.
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 6 A1 B0 G1 A3 B0 P6 A0	6.00	660.
4	MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (6)	1.00	1120.
5	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 (4 5 6 7) A1 B0 G1 (A1 B0 P1 R6)A1 B0 P1 A0 (6)	1.00	520.
6	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS A1 B0 G1 A6 B0 P3 A0	1.00	110.
7	MOUE CART FROM WORKTABLE TO SMALLSHEAR A1 B0 G1 A67 B0 P1 A0	1.00	700.
TOTAL TMU			5150.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR BLANK END

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 BLKEND.M21
SHEAR SHEETMETAL FOR BLANK END WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP
PER BLANK END OFG: 4 06-JUL-83
NASSCO SHEETMETAL BLANK END
* 18 GAUGE GALV. SHEETMETAL
* 20'X14' BLANK END
FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS	A1 B0 G1 M1 X6 I0 A0	1.00	90.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR	A1 B0 G1 A1 B0 P6 A0	1.00	90.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS	A1 B0 G1 M1 X6 I0 A0	1.00	90.
5	REPLACE SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOUE CART FROM SMALLSHEAR TO LEAFBRAKE [NOTCH PUNCH]	A1 B0 G1 A42 B0 P1 A0	1.00	490.
			TOTAL TMU	970.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR CORNERS FOR BLANK END

Output to line-Printer <Y or N> ? N

(39, 1)

FIT ● W11

BLKEND.22

SHEAR CORNERS FOR BLANK END WITH NOTCH PUNCH AT SHEETMETAL SHOP

PER BLANK END

OFG: 4 31-MAY-83

NASSCO SHEETMETAL BLANK END

* 18 GAUGE GALV. SHEETMETAL

* 20'X14' BLANK END PIECE

FITTER BEGINS AT LEAFBRAKE

1	POSITION SHEETMETAL FROM CART AT LEAFBRAKE [NOTCH PUNCH] TO LEAFBRAKE [NOTCH PUNCH] WITH 4 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	OPERATE LEAFBRAKE-LEVER [NOTCH PUNCH] PROCESS		
	A1 B0 G1 M6 X16 I0 A0	1.00	240.
3	POSITION SHEETMETAL2 FROM LEAFBRAKE [NOTCH PUNCH] TO LEAFBRAKE [NOTCH PUNCH] WITH 3 STEPS F 3		
	A1 B0 G1 A6 B0 P6 A0	3.00	420.
4	OPERATE LEAFBRAKE-LEVER [NOTCH PUNCH] PROCESS F 3		
	A1 B0 G1 M6 X16 I0 A0	3.00	720.
5	REPLACE SHEETMETAL FROM LEAFBRAKE [NOTCH PUNCH] TO CART AT LEAFBRAKE [NOTCH PUNCH] WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOUE CART FROM LEAFBRAKE [NOTCH PUNCH] TO LEAFBRAKE WITH 5 STEPS		
	A1 B0 G1 A10 B0 P1 A0	1.00	130.

TOTAL TMU 1760.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

2730

File Description ? BEND PARTIAL BENDS FOR BLANK END

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 BLKEND.M23
BEND PARTIAL BENDS FOR BLANK END WITH LEAFBRAKE AT SHEETMETAL
SHOP
PER BLANK END OFG: 4 06-JUL-83
NASSCO SHEETMETAL BLANK END
* 18 GAUGE GALV. SHEETMETAL
* 20'X14' BLANK END PIECE
* BEND FLANGES UP 45 DEGREES PARTIAL BEND
* COMPLETE BENDS TO 90DEGREES ON PAN BRAKE
FITTER BEGINS AT LEAFBRAKE .

1	POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFBRAKE WITH 4 STEPS	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	OPERATE LEAFBRAKE-LEVER PROCESS	A1 B0 G1 M6 X16 I0 A0	1.00	240.
3	POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE F 3	A1 B0 G1 A1 B0 P6 A0	3.00	270.
4	OPERATE LEAFBRAKE-LEVER PROCESS F 3	A1 B0 G1 M6 X16 I0 A0	3.00	720.
5	REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE WITH 4 STEPS	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM LEAFBRAKE TO PANBRAKE	A1 B0 G1 A42 B0 P1 A0	1.00	450.
	TOTAL TMU			1930.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

4660

File Description ? BEND SHEETMETAL UP 90 DEGREES FOR BLANK END

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

BLKEND.M24

BEND SHEETMETAL UP 90 DEGREES FOR BLANK END WITH FAN-BRAKE AT
SHEETMETAL SHOP

PER BLANK END

OFG: 4 06-JUL-83

NASSCO SHEETMETAL BLANK END

* 18 GAUGE GALV. SHEETMETAL

* 20'X14' BLANK END PIECE

* COMPLETE 90 DEGREE BENDS ON FLANGES

FITTER BEGINS AT PANBRAKE

1 POSITION SHEETMETAL FROM CART AT FANBRAKE TO PANBRAKE
WITH 4 STEPS

A1 B0 G1 A6 B0 P6 A0 1.00 140.

2 FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE 3
WRIST-TURNS USING WRENCH AT PANBRAKE AND ASIDE F 3

A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 3.00 420.

3 OPERATE PANBRAKE-LEVER PROCESS

A1 B0 G1 M6 X96 I0 A0 1.00 1040.

4 POSITION SHEETMETAL2 FROM PANBRAKE TO PANBRAKE WITH 2
STEPS F 3

A1 B0 G1 A3 B0 P6 A0 3.00 330.

5 OPERATE PANBRAKE-LEVER PROCESS F 3

A1 B0 G1 M6 X96 I0 A0 3.00 3120.

6 REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE
WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.

7 MOVE CART FROM PANBRAKE TO WORKTABLE

A1 B0 G1 AS4 B3 P1 A0 1.00 600.

TOTAL TMU 5760.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

10,420

SHEETMETAL BRACKET

4" X 8" BRACKET

FAB.	6,400	4 MIN
MARK OUT	5,440	3 MIN
TOTAL TMU.	11,840	7 MIN

File Description ? MARK OUT SHEETMETAL FOR BRACKET

Output to line-Printer <Y or N> ? N

(39,101)

FIT .W12

BRACKT.M01

MARK OUT SHEETMETAL FOR BRACKET WITH-AWL AT SHEETMETAL SHOP
PER-BRACKET OFG: 4 23-JUN-83

NASSCO SHEETMETAL BRACKET

* 16 GAUGE GALV. SHEETMETAL

* 4'X8' BRACKET

* MARK OUT WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1	MOVE SHEETMETALSCRAP FROM SCRAPBIN TO WORKTABLE		
	A54 B6 G1 A54 B3 P1 A0	1.00	1190.
2	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING		
	STEEL-TAPE AT WORKTABLE AND ASIDE F 4		
	A1 B0 G1 A1 B0 P1 M32 A1 B0 P1 A0	4.00	1520.
3	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT		
	USING AWL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE		
	AND ASIDE PF 6 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (6)	1.00	340.
4	POSITION SQUARE FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 3		
	A1 B0 G1 A1 B0 P6 A0	3.00	270.
5	MARK SHEETMETAL FROM SQUARE AT WORKTABLE 5 DIGITS USING		
	AWL AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (3)	1.00	580.
6	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 2		
	A1 B0 G1 A1 B0 P6 A0	2.00	180.
7	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING		
	HAMMER AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (2)	1.00	120.
8	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS		
	USING REDPEN AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0 (2)	1.00	400.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT		
	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND		
	ASIDE PF 2 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (2)	1.00	140.
10	MOVE SHEETMETAL FROM WORKTABLE TO SMALLSHEAR		
	A1 B0 G1 A67 B0 P1 A0	1.00	700.
	TOTAL TMU		5440.

File Description ? MARK OUT SHEETMETAL FOR BRACKET

Output to line-printer <Y or N> ?

File Description ? SHEAR SHEETMETAL FOR BRACKET

Output to line-printer <Y or N> ? N

(39,101)

FIT .W12

BRACKT.M02

SHEAR SHEETMETAL FOR BRACKET WITH SMALL 8FT. SHEAR AT SHEETMETAL
SHOP

PER BRACKET

OFG: 4 23-JUN-83

NASSCO SHEETMETAL BRACKET

* 16 GAUGE GALV. SHEETMETAL

* 4'X8' BRACKET

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM FITTER AT SMALLSHEAR TO
SMALLSHEAR

A1	B0	G1	A1	B0	P6	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

A1	B0	G1	M1	X6	I0	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR

A1	B0	G1	A1	B0	P6	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

A1	B0	G1	M1	X6	I0	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

5 MOVESHEETMETAL2 FROM SMALLSHEAR TO LEAFBRAKE

A1	B0	G1	A42	B0	P1	A0	1.00	450.
----	----	----	-----	----	----	----	------	------

TOTAL TMU							810.
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File Description ? SHEAR SHEETMETAL FOR BRACKET

Output to line-printer <Y or N> ?

File Description ? BEND SHEETMETAL UP 90 DEGREES

Output to line-Printer <Y or N> ? N

(39,101)
FIT .W12 BRACKT.M03
BEND SHEETMETAL UP 90 DEGREES WITH LEAFBRAKE AT SHEETMETAL SHOP
PER BRACKET OFG: 4 23-JUN-83
NASSCO SHEETMETAL BRACKET
* 16 GAUGE GALV. SHEETMETAL
* 4'X8' BRACKET
* BEND SHEETMETAL 90 DEGREES
FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM FITTER AT LEAFBRAKE TO
LEAFBRAKE
A1 B0 G1 A1 B0 P6 A0 1.00 90.
2 OPERATE LEAFBRAKE-LEVER PROCESS
A1 B0 G1 M6 X16 I0 A0 1.00 240.
3 MOVE SHEETMETAL FROM LEAFBRAKE TO WORKTABLE
A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 1200.

File Description ? BEND SHEETMETAL UP 90 DEGREES

Output to line-printer <Y or N> ? C

File Description ? RIVET BRACKET TO VENT DUCT

Output to line-printer <Y or N> ? N

```
( 39,101)
FIT      .W12                      BRACKT.M04
RIVET BRACKET TO VENT DUCT WITH RIVET GUN AT SHEETMETAL SHOP
'PER BRACKET                      OFG: 4 24-JUN-83
    NASSCO SHEETMETAL BRACKET
    * 16 GAUGE GALV. SHEETMETAL
    * 4'X8' BRACKET
    FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL [BRACKETS] FROM FITTER AT WORKTABLE
  TO SHEETMETAL [VENT DUCT] AT WORKTABLE
      A1 B0 G1 A1 B0 P6 A0      1.00      90.
2 FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3
  WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
      A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0      1.00      140.
3 POSITION DRILLMOTOR TO SHEETMETAL AT WORKTABLE F 8
      A1 B0 G1 A1 B0 P6 A0      8.00      720.
4 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 8
      A1 B0 G1 M6 X6 IO A0      8.00      1120.
5 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 8
      A1 B0 G1 A1 B0 P6 A0      8.00      720.
6 POSITION RIVETGUN TO SHEETMETAL AT WORKTABLE F 8
      A1 B0 G1 A1 B0 P6 A0      8.00      720.
  7 OPERATE RIVETGUN AT WORKTABLE PROCESS F 8
      A1 B0 G1 M6 X3 IO A0      8.00      880.

                                TOTAL TMU      4390.
```

File Description ? RIVET BRACKET TO VENT DUCT

Output to line-printer <Y or N> ?

6400

11,340

SHEET METAL BRACKET

12" X 8" BRACKET

FAB	6,400	4	MIN
MARK OUT	5,440	3	MIN
TOTAL TMU.	11,840	7	MIN

File Description ? MARK OUT SHEETMETAL FOR BRACKET

Output to line-printer <Y or N> ? N

```
( 39,101)
FIT      • W12                                BRACKT.M20
MARK OUT SHEETMETAL FOR BRACKET WITH AWL AT SHEETMETAL SHOP
PER BRACKET                                OFG: 4 23-JUN-83
NASSCO SHEETMETAL BRACKET
* 16 GAUGE GALV. SHEETMETAL
* 12'X8' BRACKET
FITTER BEGINS AT WORKTABLE

1 MOVE SHEETMETALSCRAP FROM SCRAPBIN TO WORKTABLE
      A54 B6 G1 A54 B3 P1 A0      1.00      1190.
2 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
  STEEL-TAPE AT WORKTABLE AND ASIDE F 4
      A1 B0 G1 A1 B0 P1 M32 A1 B0 P1 A0      4.00      1520.
3 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6) 1.00      340.
4 POSITION SQUARE FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 3
      A1 B0 G1 A1 B0 P6 A0      3.00      270.
5 MARK SHEETMETAL FROM SQUARE AT WORKTABLE 5 DIGITS USING
  AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (3) 1.00      580.
6 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 2
      A1 B0 G1 A1 B0 P6 A0      2.00      180.
7 FASTEN CPUNCH AT WORKTABLE 1 STRIKE USING HAMMER AT
  WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (2) 1.00      120.
8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
  USING REDPEN AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2) 1.00      400.
9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT
  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND
  ASIDE PF 2 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (2) 1.00      140.
10 MOVE SHEETMETAL FROM WORKTABLE TO SMALLSHEAR
      A1 B0 G1 A67 B0 P1 A0      1.00      700.

TOTAL TMU      5440.
```

File Description ? MARK OUT SHEETMETAL FOR BRACKET

Output to line-printer <Y or N> ?

File Description ? SHEAR SHEETMETAL FOR VENT DUCT

Output to line-Printer <Y or N> ? N

(39,101)
FIT .W12 BRACKT.M21
SHEAR SHEETMETAL FOR VENT DUCT WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP
PER BRACKET OFG: 4 23-JUN-83
NASSCO SHEETMETAL BRACKET
* 16 GAUGE GALV. SHEETMETAL
* 12'X8' BRACKET
FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM FITTER AT SMALLSHEAR TO
SMALLSHEAR

A1	B0	G1	A1	B0	P6	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

A1	B0	G1	M1	X6	I0	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR

A1	B0	G1	A1	B0	P6	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

A1	B0	G1	M1	X6	I0	A0	1.00	90.
----	----	----	----	----	----	----	------	-----

5 MOVE SHEETMETAL FROM SMALLSHEAR TO LEAFBRAKE

A1	B0	G1	A42	B0	P1	A0	1.00	450.
----	----	----	-----	----	----	----	------	------

TOTAL TMU 8 1 0 .

File Description ? SHEAR SHEETMETAL FOR VENT DUCT

Output to line-printer <Y or N> ?

File Description ? BEND SHEETMETAL FOR BRACKET

Output to line-Printer <Y or N> ? N

(39,101)

FIT .W12 BRACKT.M22
BEND SHEETMETAL FOR BRACKET WITH LEAFBRAKE AT SHEETMETAL SHOP
PER BRACKET OFG: 4 23-JUN-83
NASSCO SHEETMETAL BRACKET
* 16 GAUGE GALV. SHEETMETAL
* 12'X8' BRACKET
FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM FITTER AT LEAFBRAKE TO
LEAFBRAKE

A1	B0	G1	A1	B0	P6	A0	1.00	90.
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2 OPERATE LEAFBRAKE-LEVER PROCESS

A1	B0	G1	M6	X16	I0	A0	1.00	240.
----	----	----	----	-----	----	----	------	------

3 MOVE SHEETMETAL FROM LEAFBRAKE TO WORKTABLE

A1	B0	G1	A81	B3	P1	A0	1.00	870.
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TOTAL TMU	1200.
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File Description ? BEND SHEETMETAL FOR BRACKET

Output to line-Printer <Y or N> ?

2010

(39,101)

FIT ● W12

BRACKT.M23

RIVET BRACKET ON VENT DUCT WITH RIVETGUN AT SHEETMETAL SHOP

PER BRACKET

OFG: 4 06-JUL-83

NASSCO SHEETMETAL BRACKET

* 16 GAUGE GALV. SHEETMETAL

* 12'X5' BRACKET

FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL BRACKET FROM FITTER AT WORKTABLE TO
SHEETMETAL VENT DUCT AT WORKTABLE

A1 B0 G1 A1 B0 P6 A0

1.00 90.

2 FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3

WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE

A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0

1.00 140.

3 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 8

A1 B0 G1 A1 B0 P6 A0

8.00 720,

4 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 8

A1 B0 G1 M6 X6 I0 A0

8.00 1120.

5 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 8

A1 B0 G1 A1 B0 F6 A0

8.00 720.

6 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT
WORKTABLE F 8

A1 B0 G1 A1 B0 P6 A0

8.00 720.

7 OPERATE RIVETGUN AT WORKTABLE PROCESS F 8

A1 B0 G1 M6 X3 I0 A0

8.00 880.

TOTAL TMU

4390.

File Description.? RIVET BRACKET TO VENT DUCT

Output to line-Printer <Y or N> ?

6,400

SHEET METAL BALANCE DAMPER

6" X 8" BALANCE DAMPER

<u>FAB</u>	<u>20,870</u>	<u>12. MIN.</u>
<u>MARK OUT</u>	<u>11,270</u>	<u>6 MIN.</u>
<u>TOTAL TMO.</u>	<u>32,140</u>	<u>19 MIN</u>

File Description ? MARK OUT BALANCE DAMPER

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output to line-printer <Y or N> ? N

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 $(39, 1)$

F1T ● W11

BDAMP .MO1

MARK OUT SHEETMETAL FOR BALANCE DAMPER WITH AWL AT SHEETMETAL SHOP

PER DAMPER

OFG: 4 22-JUN-83

NASSCO SHEETMETAL BALANCE DAMPER

* 20 GAUGE GALV. SHEETMETAL

* 6'X8' DAMPER BLADE

* MARK OUT WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

```
1  MOVE SHEETMETALSCRAP FROM SCRAPBIN TO WORKTABLE
```

A152B3 G1 A152B3 F1 A0

1.00 3120.

2 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING
STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 M32)A1 B0 P1 A0

3 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT

USING AWL AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)

$$A1 \quad B0 \quad G1 \quad (A1 \quad B0 \quad P1 \quad R3) \quad A1 \quad B0 \quad P1 \quad A0$$

4 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT

WORKTABLE F 7

A1 B0 G1 A1 B0 P6 A0

7.00 630.

9 MARK LINES ON SHEETMETAL FROM STRAIGHTEDGE TO
SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT

WORKTABLE AND ASIDE PF 7 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0

6 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS

USING REPPEN AT WORKTABLE AND ASIDE PF 2 (4 5 6 7)

A1 B0 G1 (A1 B0 P1 R16)A1 B0 P1 A0

7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT

WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND

ASIDE PF 8 (4 5 6 7)

$$A1 \quad B0 \quad G1 \quad (A1 \quad B0 \quad P1 \quad R3) \quad A1 \quad B0 \quad P1 \quad A0$$

1.00 440.

8 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT

USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7

)

A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0

1.00 1,640.

9 MOVE SHEETMETAL FROM WORKTABLE TO SMALLSHEAR

A1 B0 G1 A67 B0 P1 A0

1.00 700.

TOTAL TMU

11270.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR BALANCE DAMPER

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 BDAMP .M02
SHEAR SHEETMETAL FOR BALANCE DAMPER WITH SMALL 8FT. SHEAR AT
SHEETMETAL SHOP
PER DAMPER OFG: 4 22-JUN-83
NASSCO SHEETMETAL BALANCE DAMPER
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' DAMPER BLADE
* SHEAR MITERS ON ENDS
FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM FITTER AT SMALLSHEAR TO SMALLSHEAR	A1 B0 G1 A1 B0 P6 A0	1.00	90.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS	A1 B0 G1 M1 X6 I0 A0	1.00	90.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 5	A1 B0 G1 A1 B0 P6 A0	5.00	450.
4	OPERATE FOOTPEDAL AT SMALLSHEAR PROCESS. F 5	A1 B0 G1 M6 X6 I0 A0	5.00	700.
5	MOVE SHEETMETAL FROM SMALLSHEAR TO WORKTABLE	A1 B0 G1 A67 B3 P1 A0	1.00	730.
	TOTAL TMU			2060.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? BEND SHEETMETAL FOR BALANCE DAMPER

Output to line-printer <Y or N> ? N

(39, 1)
FIT .W11 BDAMP .MO3
BEND SHEETMETAL FOR BALANCE DAMPER WITH LEAFBRAKE AT SHEETMETAL
SHOP
PER DAMPER OFG: 4 22-JUN-83
NASSCO SHEETMETAL BALANCE DAMPER
* 20 GAUGE GALV. SHEETMETAL
* 6'X8' BALANCE DAMPER
* BEND DAMPER BLADE OVER 190--
* --DEGREES FOR HEMMED EDGE
FITTER BEGINS AT LEAFBRAKE

1	POSITION SHEETMETAL FROM FITTER AT LEAFBRAKE TO LEAFBRAKE	A1	B0	G1	A1	B0	P6	A0	1.00	90.
2	OPERATE LEAFBRAKE-LEVER PROCESS	A1	B0	G1	M6	X16	I0	A0	1.00	240.
3	POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE F 3	A1	B0	G1	A1	B0	I6	A0	3.00	270.
4	OPERATE LEAFBRAKE-LEVER PROCESS F 3	A1	B0	G1	M6	X16	I0	A0	3.00	720.
5	MOVE SHEETMETAL FROM LEAFBRAKE TO WORKTABLE	A1	B0	G1	A81	B3	P1	A0	1.00	870.
TOTAL TMU									2190.	

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

4250

File Description ? DRILL SHEETMETAL FOR BALANCE DAMPER

Output to line-printer <Y or N> ? N

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( 39, 1)
FIT      • W11                      BDAMP .M04
      DRILL SHEETMETAL FOR BALANCE DAMPER WITH DRILLMOTOR AT SHEETMETAL
SHOP
PER DAMPER                                OFG: 4   22-JUN-83
      NASSCO SHEETMETAL BALANCE DAMPER
      * 20 GAUGE GALV. SHEETMETAL
      * 6'X8' BALANCE DAMPER
      * HOLES IN VENT DUCT AND DAMPER BLADE--
      * --FOR DAMPER PARTS
      FITTER BEGINS AT WORKTABLE

1 MOVE DAMPERPARTS FROM STORAGEBIN TO WORKTABLE
      A81 B0 G1 A81 B3 P1 A0          1.00      1670.
2 MEASURE DIMENSIONS ON SHEETMETAL [VENT DUCT] AT
  WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4
  ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) 1.00      1400.
3 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT
  USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) 1.00      240.
4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 2
      A1 B0 G1 A1 B0 P6 A0          2.00      180.
5 FASTEN CPUNCH TO SHEETMETAL [VENT DUCT] AT WORKTABLE 1
  STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 2 ( 4 5
  6 7 )
      A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (2) 1.00      120.
6 FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3
  WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
      A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0          1.00      140.
7 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 2
      A1 B0 G1 A1 B0 P6 A0          2.00      180.
8 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2
      A1 B0 G1 M6 X6 I0 A0          2.00      280.
9 LOOSEN 5-32DRILLBIT FROM DRILLMOTOR AT WORKTABLE 3
  WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
      A1 B0 G1 A1 B0 P3 L6 A1 B0 P1 A0          1.00      140.
10 FASTEN 1-2DRILLBIT TO DRILLMOTOR AT WORKTABLE 3
  WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE
      A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0          1.00      140.
11 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 2
      A1 B0 G1 A1 B0 P6 A0          2.00      180.
12 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2
      A1 B0 G1 M6 X6 I0 A0          2.00      280.
13 LOOSEN SHEETMETAL SCREWS FROM DAMPERPARTS AT WORKTABLE
  5 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE PF
  4 ( 4 5 6 7 )
      A1 B0 G1 (A1 B0 P3 L10 )A1 B0 P1 A0 (4) 1.00      600.
14 PLACE DAMPERPARTS FROM WORKTABLE TO SHEETMETAL AT
  WORKTABLE F 2
```

WORKTABLE 1

	A1 B0 G1 A1 B0 P3 A0	2.00	120.
15	POSITION SHEETMETAL DAMPERBLADE FROM WORKTABLE TO DAMPERPARTS AT WORKTABLE		
	A1 B0 G1 A1 B0 P6 A0	1.00	90.
16	MARK RIVET HOLES FROM DAMPERPARTS TO SHEETMETAL [VENT DUCT] AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (6)	1.00	340.
17	MARK SCREW HOLES FROM DAMPERPARTS TO SHEETMETAL DAMPERBLADE AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P1 R3)A1 B0 P1 A0 (4)	1.00	240.
18	REPLACE SHEETMETAL DAMPERBLADE FROM SHEETMETAL [VENT DUCT] AT WORKTABLE TO WORKTABLE		
	A1 B0 G1 A1 B0 P3 A0	1.00	60.
19	REPLACE DAMPERPARTS FROM SHEETMETAL [VENT DUCT] AT WORKTABLE TO WORKTABLE		
	A1 B0 G1 A1 B0 P3 A0	1.00	60.
20	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL [VENT DUCT] AT WORKTABLE F 6		
	A1 B0 G1 A1 B0 P6 A0	6.00	540.
21	FASTEN CPUNCH TO SHEETMETAL [VENT DUCT] AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (6)	1.00	280.
22	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL DAMPERBLADE AT WORKTABLE F 6		
	A1 B0 G1 A1 B0 P6 A0	6.00	540.
23	FASTEN CPUNCH TO SHEETMETAL DAMPERBLADE AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P0 F3)A1 B0 P1 A0 (4)	1.00	200.
24	LOOSEN 1-2DRILLBIT FROM DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE		
	A1 B0 G1 A1 B0 P3 L6 A1 B0 P1 A0	1.00	140.
25	FASTEN 7.32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE		
	A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0	1.00	140.
26	POSITION DRILLMOTOR TO SHEETMETAL [DAMPERBLADE] AT WORKTABLE F 4		
	A1 B0 G1 A1 B0 P6 A0	4.00	360.
27	OPERATE DRILLMOTOR PROCESS F 4		
	A1 B0 G1 M6 X6 I0 A0	4.00	560.
28	PLACE FILE TO SHEETMETAL AT WORKTABLE F 4		
	A1 B0 G1 A1 B0 P3 A0	4.00	240.
29	LOOSEN 7.32DRILL-BIT FROM DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)		
	A1 B0 G1 (A1 B0 P3 L6)A1 B0 P1 A0 (6)	1.00	640.
30	FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE		
	A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0	1.00	140.
31	POSITION DRILLMOTOR TO SHEETMETAL AT WORKTABLE [VENT DUCT] F 6		
	A1 B0 G1 A1 B0 P6 A0	6.00	540.
32	OPERATE DRILLMOTOR PROCESS F 6		
	A1 B0 G1 M6 X6 I0 A0	6.00	840.
33	POSITION FILE TO SHEETMETAL AT WORKTABLE F 4		
	A1 B0 G1 A1 B0 P6 A0	4.00	360.
34	DEBURR SHEETMETAL AT WORKTABLE 5 ARM-STROKES USING FILE		

AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)
A1 B0 G1 (A1 B0 P1 C6)A1 B0 P1 A0 (4) 1.00 360.

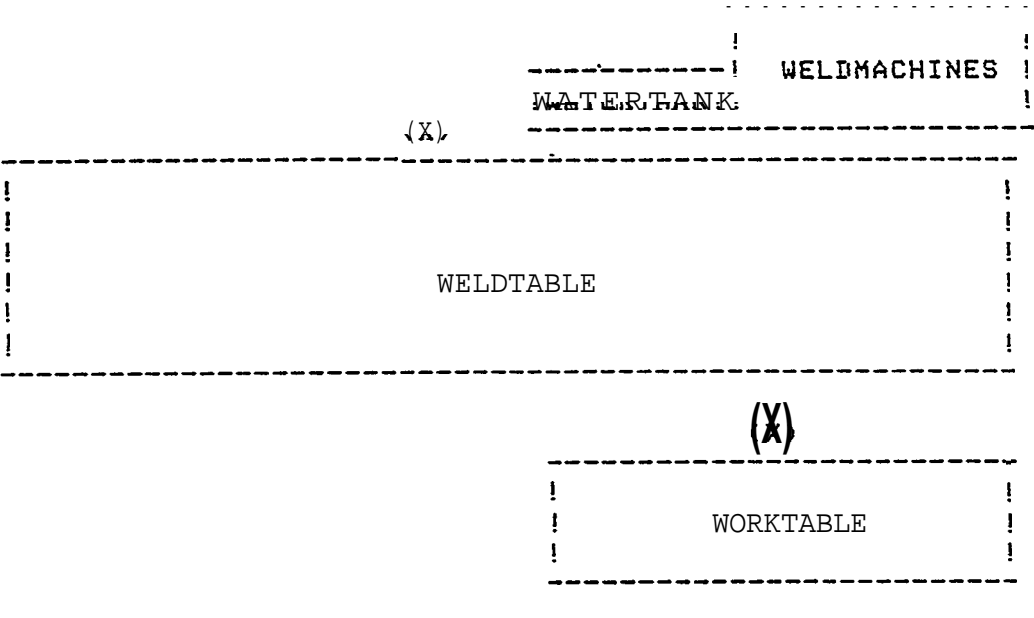
TOTAL TMU 12340.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

20870

Output to line-printer <Y or N> ? N

WELD . W 0 1 (39,101)



Name	Location		Body/Fras/PT
WORKPLACES :			
WELDTABLE	15 , 8	55 , 7	PBEND
TOOLROOM	0 , 0	10 , 5	
WELDMACHINES	55 , 16	16 , 4	
WORKTABLE	45 , 1	25 , 4	BEND
WATERTANK	44 , 16	10 , 2	
TOOLS :			
STINGER1	WELDTABLE		
STINGER2	WELDTABLE		
WOODBLOCKS	WELDTABLE		
WIREBRUSH	WELDTABLE		
WEIGHTS	WELDTABLE		
WELDGUN	WELDTABLE		
WELDROD	WELDTABLE		
ANTI - SPATTER	WELDTABLE		
SLAGHAMMER	WELDTABLE		
PLIERS	WELDTABLE		
SMALLBRUSH	WELDTABLE		
FOXTAIL	WELDTABLE		
GROUNDCLAMPS	WELDTABLE		
WIRECUTTERS	WELDTARLE		
PAPER	WELDTABLE		
PEN	WELDTABLE		
RODS	TOOLROOM		
WIRE	TOOLROOM		
WELDHOOD	WELDOR		

OBJECTS :

S.M.ASSEMBLY	WELDTABLE	
ASSEMBLY	WORKTABLE	FRAG
CART	WORKTABLE	FRAG

EQUIPMENT :

VENTHOSE1	WELDTABLE	
VENTHOSE2	WELDTABLE	
STINGER-BUTTON2	WELDTABLE	
STINGER-BUTTON1	WELDTABLE	30 S
ANTI-SPATTER2	WELDTABLE	3 S
LEVER	WELDMACHINES	
CRANK	WELDMACHINES	
MIG-SWITCH	WELDMACHINES	
TIG-SWITCH	WELDMACHINES	
GAS-HOOKUP-SWITCH	WELDMACHINES	
BUTTON	WELDMACHINES	
POWER-SUPPLY-SWITCH	WELDMACHINES	
SWITCH	WATERTANK	

OPERATORS :

WELDOR	WELDTABLE	38,16 B
FITTER	WORKTABLE	57,6

From	To	Steps
-----	-----	-----
WELDTABLE	TOOLROOM	75
WELDTABLE	WELDMACHINES	2
WELDTABLE	WORKTABLE	71
WELDTABLE	WATERTANK	1
TOOLROOM	WELDMACHINES	76
TOOLROOM	WORKTABLE	52
TOOLROOM	WATERTANK	76
WELDMACHINES	WORKTABLE	72
WELDMACHINES	WATERTANK	2
WORKTABLE	WATERTANK	72

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

BARFOLDER	17,1	12,2	
14FT.SHEAR	55,16	10,2	
PED.GRINDER	30,16	15,2	
STORAGEBIN	0,4	10,2	
MARKOUT-STORAGE	41,0	17,2	
MARKOUT	62,0	9,2	PBEND
SHEETMETAL-STORAGE	52,6	19,2	
SEAMWELDER	55,10	15,2	PBEND

TOOLS:

AWL	WORKTABLE
SETTINGTOOL	WORKTABLE
CPUNCH	WORKTABLE
SCREWDRIVER	WORKTABLE
GLOVES	WORKTABLE
SNIPES	WORKTABLE
BLACKPEN	WORKTABLE
CCLAMPS	WORKTABLE
SQUARE	WORKTABLE
MARKINGGAUGE	WORKTABLE
STEELTAPE	WORKTABLE
DIVIDERS	WORKTABLE
HANDFORMER	WORKTABLE
TEMPLATE	WORKTABLE
CHISEL	WORKTABLE
VISEGRIPS	WORKTABLE
RIVET-HOLE-GUIDE	WORKTABLE
HAMMER	WORKTABLE
CAULKINGGUN	WORKTABLE
BARCLAMP	WORKTABLE
FILE	WORKTABLE
1-4DRILLBIT	WORKTABLE
1-2DRILLBIT	WORKTABLE
5-32DRILLBIT	WORKTABLE
SKETCH	WORKTABLE
7.32DRILL-BIT	WORKTABLE
5.16DRILL-BIT	WORKTABLE
1.4TAP	WORKTABLE
CHUCKKEY	WORKTABLE
9.16WRENCH	WORKTABLE
MASKING-TAFE	WORKTABLE
SAW-BLADES	WORKTABLE
15.16WRENCH	PANBRAKE
FORMINGSTAKES	WORKBENCH
BARCLAMP2	TOOLROOM
DRILLBIT	TOOLROOM
UTILITY-KNIFE	TOOLROOM
GRINDER	TOOLROOM
SABER-SAW2	TOOLROOM
SAW-BLADES2	TOOLROOM
UNISHEAR2	TOOLROOM
1-4PUNCH	PLASMA-ARC
3-8PUNCH	PLASMA-ARC
7-16PUNCH	PLASMA-ARC
1-2PUNCH	PLASMA-ARC
9-16PUNCH	PLASMA-ARC
5-8PUNCH	PLASMA-ARC
11-16PUNCH	PLASHA-ARC
3-4PUNCH	PLASMA-ARC
CLAMP	PLASMA-ARC

STRIPER
DIE
ALLENWRENCH

PLASMA-ARC
PLASMA-ARC
SEAMWELDER

OBJECTS:

SHEETMETAL
DAMFERPARTS2
RIVETS:F
SHEETMETALSCRAP
BRUSH
BOLTS
GLUE
FLANGES
TAPE-CONTAINER
COMPUTER-TAPE
RUBBER
DAMPERPARTS
CART
SHEETMETAL2:F
S.M.CART
GAUGED-SHEETMETAL
PANEL-LIGHTS

WORKTABLE
WORKTABLE
WORKTABLE
SCRAPBIN
TOOLROOM
TOOLROOM
TOOLROOM
FLANGEAREA
PLASMA-ARC
PLASMA-ARC
GASKET-CUTTING-TABLE
STORAGEBIN
MARKOUT-STORAGE
MARKOUT-STORAGE
SHEETMETAL-STORAGE
SHEETMETAL-STORAGE
SEAMWELDER

FRAG

FRAG

EQUIPMENT:

RIVETGUN
DRILLMOTOR
UNISHEAR
SABER-SAW
14FTHYDROPRESSBRAKE-FOOTPEDAL
TAACKWELDER
DRILLPRESS-BUTTON
PANBRAKE-LEVER
CORNICEBRAKE-LEVER
LEAFBRAKE-LEVER
EASYEDGER
HAND-ROLLER
FOOTPEDAL
PITTSBURGH-BUTTON
LAPOUT-SWITCH
TAPINGMOTOR
ROLLER-BUTTON
EDGER-SWITCH
NIBBLER-BUTTON
TOOLLOCK-SWITCH
SPOTWELDER-FOOTPEDAL
BARFOLDER-LEVER
14FT.SHEAR-FOOTPEDALL
CARRIAGE-SPEED-SWITCH
VOLTAGE-METER-SWITCH
AMP-METER-SWITCH
ON-OFF-SWITCH
CARRIAGE-STOP
WIRE-FEED-SWITCH
CENTERING-DEVICE
CLAMPING-DEVICE-FOOT-SWITCH
CARRIAGE-TRACK
SERUENCE-START-SWITCH
SEAMWELDER-LATCH
TORCH-UP-AND-DOWN-SWITCH

WORKTABLE
WORKTABLE
WORKTABLE
WORKTABLE
14FTHYDROPRESSBRAKE
WELDOUT
DRILLPRESS
PANBRAKE
CORNICEBRAKE
LEAFBRAKE
WORKBENCH
WORKBENCH
SMALLSHEAR
PITTSBURGH
LAPOUT
TOOLROOM
ROLLER
EDGER
NIBBLER
PLASMA-ARC
SPOTWELDER
GASKET-CUTTING-TABLE
14FT.SHEAR
SEAMWELDER
SEAMWELDER
SEAMWELDER
SEAMWELDER
SEAMWELDER
SEAMWELDER
SEAMWELDER
SEAMWELDER
SEAMWELDER

1.5 S

2 S

66 S

24 S

9.5 S

1 S

3.2 S

32 S

17 S

7 S

30 S

2 S

10 S

5 S

37 S

17 S

31 S

2 S

5.8 S

1.4 S

1 M

OPERATORS:

FITTER

WORKTABLE

28, 20 B

From	To	Steps
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WORKTABLE	14FTHYDROPRESSBRAKE	54
WORKTABLE	WELDOUT	29
WORKTABLE	DRILLPRESS	20
WORKTABLE	PANBRAKE	33
WORKTABLE	CORNICEBRAKE	32
WORKTABLE	LEAFBRAKE	41
WORKTABLE	WORKBENCH	38
WORKTABLE	SMALLSHEAR	35
WORKTABLE	PITTSBURGH	33
WORKTABLE	LAPOUT	31
WORKTABLE	SCRAPBIN	32
WORKTABLE	TOOLROOM	52
WORKTABLE	ROLLER	30
WORKTABLE	EDGER	36
WORKTABLE	NIBBLER	20
WORKTABLE	FLANGEAREA	90
WORKTABLE	PLASMA-ARC	73
WORKTABLE	HYDROPRESS	55
WORKTABLE	SPOTWELDER	29
WORKTABLE	GASKET-CUTTING-TABLE	54
WORKTABLE	BARFOLDER	38
WORKTABLE	14FT. SHEAR	85
WORKTABLE	PED. GRINDER	22
WORKTABLE	STORAGEBIN	46
WORKTABLE	MARKOUT-STORAGE	87
WORKTABLE	MARKOUT	90
WORKTABLE	SHEETMETAL-STORAGE	90
WORKTABLE	SEAMWELDER	77
14FTHYDROPRESSBRAKE	WELDOUT	66
14FTHYDROPRESSBRAKE	DRILLPRESS	38
14FTHYDROPRESSBRAKE	PANBRAKE	44
14FTHYDROPRESSBRAKE	CORNICEBRAKE	40
14FTHYDROPRESSBRAKE	LEAFBRAKE	35
14FTHYDROPRESSBRAKE	WORKBENCH	36
14FTHYDROPRESSBRAKE	SMALLSHEAR	25
14FTHYDROPRESSBRAKE	PITTSBURGH	32
14FTHYDROPRESSBRAKE	LAPOUT	30
14FTHYDROPRESSBRAKE	SCRAPBIN	35
14FTHYDROPRESSBRAKE	TOOLROOM	19
14FTHYDROPRESSBRAKE	ROLLER	33
14FTHYDROPRESSBRAKE	EDGER	27
14FTHYDROPRESSBRAKE	NIBBLER	22
14FTHYDROPRESSBRAKE	FLANGEAREA	91
14FTHYDROPRESSBRAKE	PLASMA-ARC	24
14FTHYDROPRESSBRAKE	HYDROPRESS	8
14FTHYDROPRESSBRAKE	SPOTWELDER	27
14FTHYDROPRESSBRAKE	GASKET-CUTTING-TABLE	66
14FTHYDROPRESSBRAKE	BARFOLDER	31
14FTHYDROPRESSBRAKE	14FT. SHEAR	34
14FTHYDROPRESSBRAKE	PED. GRINDER	34
14FTHYDROPRESSBRAKE	STORAGEBIN	58
14FTHYDROPRESSBRAKE	MARKOUT-STORAGE	36
14FTHYDROPRESSBRAKE	MARKOUT	40

14FTHYDROPRESSBRAKE	SHEETMETAL-STORAGE	45
14FTHYDROPRESSBRAKE	SEAMWELDER	20
WELDOUT	DRILLPRESS	28
WELDOUT	PANBRAKE	28
WELDOUT	CORNICEBRAKE	28
WELDOUT	LEAFBRAKE	47
WELDOUT	WORKBENCH	44
WELDOUT	SMALLSHEAR	49
WELDOUT	PITTSBURGH	38
WELDOUT	LAYOUT	45
WELDOUT	SCRAPBIN	47
WELDOUT	TOOLROOM	63
WELDOUT	ROLLER	35
WELDOUT	EDGER	42
WELDOUT	NIBBLER	37
WELDOUT	FLANGEAREA	83
WELDOUT	PLASMA-ARC	88
WELDOUT	HYDROPRESS	62
WELDOUT	SPOTWELDER	26
WELDOUT	GASKET-CUTTING-TABLE	46
WELDOUT	BARFOLDER	31
WELDOUT	14FT.SHEAR	90
WELDOUT	PED,GRINDER	34
WELDOUT	STORAGEBIN	37
WELDOUT	MARKOUT-STORAGE	91
WELDOUT	MARKOUT	90
WELDOUT	SHEETMETAL-STORAGE	90
WELDOUT	SEAMWELDER	92
DRILLPRESS	PANBRAKE	27
DRILLPRESS	CORNICEBRAKE	19
DRILLPRESS	LEAFBRAKE	22
DRILLPRESS	WORKBENCH	17
DRILLPRESS	SMALLSHEAR	19
DRILLPRESS	PITTSBURGH	10
DRILLPRESS	LAYOUT	11
DRILLPRESS	SCRAPBIN	28
DRILLPRESS	TOOLROOM	33
DRILLPRESS	ROLLER	9
DRILLPRESS	EDGER	13
DRILLPRESS	NIBBLER	4
DRILLPRESS	FLANGEAREA	75
DRILLPRESS	PLASMA-ARC	57
DRILLPRESS	HYDROPRESS	38
DRILLPRESS	SPOTWELDER	20
DRILLPRESS	GASKET-CUTTING-TABLE	41
DRILLPRESS	BARFOLDER	18
DRILLPRESS	14FT.SHEAR	69
DRILLPRESS	PED.GRINDER	13
DRILLPRESS	STORAGEBIN	29
DRILLPRESS	MARKOUT-STORAGE	70
DRILLPRESS	MARKOUT	74
DRILLPRESS	SHEETMETAL-STORAGE	90
DRILLPRESS	SEAMWELDER	61
PANBRAKE	CORNICEBRAKE	5
PANBRAKE	LEAFBRAKE	25
PANBRAKE	WORKBENCH	20
PANBRAKE	SMALLSHEAR	27
PANBRAKE	PITTSBURGH	18
PANBRAKE	LAYOUT	20
PANBRAKE	SCRAPBIN	36

PANBRAKE	TOOLROOM	40
PANBRAKE	ROLLER	19
PANBRAKE	EDGER	17
PANBRAKE	NIBBLER	13
PANBRAKE	FLANGEAREA	62
PANBRAKE	PLASMA-ARC	61
PANBRAKE	HYDROPRESS	47
PANBRAKE	SPOTWELDER	30
PANBRAKE	GASKET-CUTTING-TABLE	24
PANBRAKE	BARFOLDER	24
PANBRAKE	14FT.SHEAR	72
PANBRAKE	PED.GRINDER	22
PANBRAKE	STORAGEBIN	15
PANBRAKE	MARKOUT-STORAGE	74
PANBRAKE	MARKOUT	78
PANBRAKE	SHEETMETAL-STORAGE	90
PANBRAKE	SEAMWELDER	65
CORNICEBRAKE	LEAFBRAKE	47
CORNICEBRAKE	WORKBENCH	16
CORNICEBRAKE	SMALLSHEAR	22
CORNICEBRAKE	PITTSBURGH	13
CORNICEBRAKE	LAYOUT	17
CORNICEBRAKE	SCRAPBIN	32
CORNICEBRAKE	TOOLROOM	36
CORNICEBRAKE	ROLLER	15
CORNICEBRAKE	EDGER	15
CORNICEBRAKE	NIBBLER	9
CORNICEBRAKE	FLANGEAREA	65
CORNICEBRAKE	PLASMA-ARC	58
CORNICEBRAKE	HYDROPRESS	41
CORNICEBRAKE	SPOTWELDER	26
CORNICEBRAKE	GASKET-CUTTING-TABLE	27
CORNICEBRAKE	BARFOLDER	21
CORNICEBRAKE	14FT.SHEAR	69
CORNICEBRAKE	PED.GRINDER	18
CORNICEBRAKE	STORAGEBIN	17
CORNICEBRAKE	MARKOUT-STORAGE	70
CORNICEBRAKE	MARKOUT	75
CORNICEBRAKE	SHEETMETAL-STORAGE	86
CORNICEBRAKE	SEAMWELDER	62
LEAFBRAKE	WORKBENCH	5
LEAFBRAKE	SMALLSHEAR	21
LEAFBRAKE	PITTSBURGH	18
LEAFBRAKE	LAYOUT	19
LEAFBRAKE	SCRAPBIN	34
LEAFBRAKE	TOOLROOM	29
LEAFBRAKE	ROLLER	20
LEAFBRAKE	EDGER	18
LEAFBRAKE	NIBBLER	17
LEAFBRAKE	FLANGEAREA	73
LEAFBRAKE	PLASMA-ARC	56
LEAFBRAKE	HYDROPRESS	33
LEAFBRAKE	SPOTWELDER	32
LEAFBRAKE	GASKET-CUTTING-TABLE	43
LEAFBRAKE	BARFOLDER	8
LEAFBRAKE	14FT.SHEAR	67
LEAFBRAKE	PED.GRINDER	21
LEAFBRAKE	STORAGEBIN	21
LEAFBRAKE	MARKOUT-STORAGE	68
LEAFBRAKE	MARKOUT	74

LEAFBRAKE	SHEETMETAL-STORAGE	76
LEAFBRAKE	SEAMWELDER	61
WORKBENCH	SMALLSHEAR	19
WORKBENCH	PITTSBURGH	12
WORKBENCH	LAYOUT	14
W O R K B E N C H	SCRAPBIN	27
WORKBENCH	TOOLROOM	30
WORKBENCH	ROLLER	18
WORKBENCH	EDGER	13
WORKBENCH	NIBBLER	13
WORKBENCH	FLANGEAREA	76
WORKBENCH	PLASMA-ARC	53
WORKBENCH	HYDROPRESS	35
WORKBENCH	SPOTWELDER	23
WORKBENCH	GASKET-CUTTING-TABLE	40
WORKBENCH	BARFOLDER	10
WORKBENCH	14FT. SHEAR	63
WORKBENCH	PED. GRINDER	17
WORKBENCH	STORAGEBIN	24
WORKBENCH	MARKOUT-STORAGE	65
WORKBENCH	MARKOUT	70
WORKBENCH	SHEETMETAL-STORAGE	80
WORKBENCH	SEAMWELDER	58
SMALLSHEAR	PITTSBURGH	12
SMALLSHEAR	LAYOUT	10
SMALLSHEAR	SCRAPBIN	16
SMALLSHEAR	TOOLROOM	19
SMALLSHEAR	ROLLER	6
SMALLSHEAR	EDGER	13
SMALLSHEAR	NIBBLER	16
SMALLSHEAR	FLANGEAREA	83
SMALLSHEAR	PLASMA-ARC	31
SMALLSHEAR	HYDROPRESS	24
SMALLSHEAR	SPOTWELDER	14
SMALLSHEAR	GASKET-CUTTING-TABLE	58
SMALLSHEAR	BARFOLDER	14
SMALLSHEAR	14FT. SHEAR	42
SMALLSHEAR	PEDIGRINDER	9
SMALLSHEAR	STORAGEBIN	37
SMALLSHEAR	MARKOUT-STORAGE	42
SMALLSHEAR	MARKOUT	47
SMALLSHEAR	SHEETMETAL-STORAGE	59
SMALLSHEAR	SEAMWELDER	31
PITTSBURGH	LAYOUT	3
PITTSBURGH	SCRAPBIN	18
PITTSBURGH	TOOLROOM	25
PITTSBURGH	ROLLER	8
PITTSBURGH	EDGER	8
PITTSBURGH	NIBBLER	5
PITTSBURGH	FLANGEAREA	75
PITTSBURGH	PLASMA-ARC	53
PITTSBURGH	HYDROPRESS	16
PITTSBURGH	SPOTWELDER	14
PITTSBURGH	GASKET-CUTTING-TABLE	37
PITTSBURGH	BARFOLDER	12
PITTSBURGH	14FT. SHEAR	63
PITTSBURGH	PED. GRINDER	7
PITTSBURGH	STORAGEBIN	29
PITTSBURGH	MARKOUT-STORAGE	64
PITTSBURGH	MARKOUT	70

PITTSBURGH	SHEETMETAL-STORAGE	73
PITTSBURGH	SEAMWELDER	56
LAPOUT	SCRAPBIN	15
LAPOUT	TOOLROOM	2 2
LAPOUT	ROLLER	5
LAPOUT	EDGER	8
LAPOUT	NIBBLER	8
LAPOUT	FLANGEAREA	78
LAPOUT	PLASMA-ARC	46
LAPOUT	HYDROPRESS	29
LAPOUT	SPOTWELDER	12
LAPOUT	GASKET-CUTTING-TABLE	42
LAPOUT	BARFOLDER	11
LAPOUT	14FT.SHEAR	57
LAPOUT	PED.GRINDER	4
LAPOUT	STORAGEBIN	25
LAPOUT	MARKOUT-STORAGE	58
LAPOUT	MARKOUT	62
LAPOUT	SHEETMETAL-STORAGE	72
LAPOUT	SEAMWELDER	50
SCRAPBIN	TOOLROOM	32
SCRAPBIN	ROLLER	12
SCRAPBIN	EDGER	23
SCRAPBIN	NIBBLER	63
SCRAPBIN	FLANGEAREA	90
SCRAPBIN	PLASMA-ARC	24
SCRAPBIN	HYDROPRESS	21
SCRAPBIN	SPOTWELDER	6
SCRAPBIN	GASKET-CUTTING-TABLE	90
SCRAPBIN	BARFOLDER	25
SCRAPBIN	14FT.SHEAR	1} i3
SCRAPBIN	PED.GRINDER	15
SCRAPBIN	STORAGEBIN	46
SCRAPBIN	MARKOUT-STORAGE	18
SCRAPBIN	MARKOUT	19
SCRAPBIN	SHEETMETAL-STORAGE	10
SCRAPBIN	SEAMWELDER	26
TOOLROOM	ROLLER	28
TOOLROOM	EDGER	25
TOOLROOM	NIBBLER	27
TOOLROOM	FLANGEAREA	90
TOOLROOM	PLASMA-ARC	42
TOOLROOM	HYDROPRESS	21
TOOLROOM	SPOTWELDER	31
TOOLROOM	GASKET-CUTTING-TABLE	57
TOOLROOM	BARFOLDER	22
TOOLROOM	14FT.SHEAR	51
TOOLROOM	PED.GRINDER	25
TOOLROOM	STORAGEBIN	48
TOOLROOM	MARKOUT-STORAGE	50
TOOLROOM	MARKOUT	54
TOOLROOM	SHEETMETAL-STORAGE	62
TOOLROOM	SEAMWELDER	4 3
ROLLER	EDGER	12
ROLLER	NIBBLER	{_ 11
ROLLER	FLANGEAREA	81
ROLLER	PLASMA-ARC	50
ROLLER	HYDROPRESS	33
ROLLER	SPOTWELDER	10
ROLLER	GASKET-CUTTING-TABLE	46

ROLLER ^%J\$%euEE*J

'\$\$\$\$\$HHHSP*) *

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Z5\$dHH

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14FT.SHEAR	PED.GRINDER	61
14FT.SHEAR	STORAGEBIN	84
14FT.SHEAR	MARKOUT-STORAGE	14
14FT.SHEAR	MARKOUT	14
14FT.SHEAR	SHEETMETAL-STORAGE	17
14FT.SHEAR	SEAMWELDER	45
PED.GRINDER	STORAGEBIN	32
PED.GRINDER	MARKOUT-STORAGE	63
PED.GRINDER	MARKOUT	66
PED.GRINDER	SHEETMETAL-STORAGE	7
PED.GRINDER	SEAMWELDER	54
STORAGEBIN	MARKOUT-STORAGE	86
STORAGEBIN	MARKOUT	90
STORAGEBIN	SHEETMETAL-STORAGE	90
STORAGEBIN	SEAMWELDER	78
MARKOUT-STORAGE	MARKOUT	5
MARKOUT-STORAGE	SHEETMETAL-STORAGE	20
MARKOUT-STORAGE	SEAMWELDER	21
MARKOUT	SHEETMETAL-STORAGE	20
MARKOUT	SEAMWELDER	25
SHEETMETAL-STORAGE	SEAMWELDER	30

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? L

S%Invalid command.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? L

Output to line-printer <Y or N> ? N

F I T W 1 4 (39,101)

```

-----
! WELDOUT !      ! WORKTABLE (X)      ! SPOTWELDER !      ! SCRAPBIN!
-----
! FLANGEAREA!    ! DRILLPRESS ! ! PED.GRINDER !      !14FT.SHEAR
-----
!GASKET-CUTTING-TABLE! ! ROLLER!! LAPOUT! ! HYDROPRESS !
-----
! PANBRAKE !! NIBBLER!! PITTSBURGH! !SMALLSHEAR      ! SEAMWELDER !
-----
! CORNICEBRAKE !      ! EDGER!
-----
! SHEETMETAL-STORAGE!
-----
!STORAGEBIN      ! WORKBENCH!-----mZ-----
-----
!14FTHYDROPRESSBRAKE! PLASMA-ARC!
-----
! LEAFBRAKE !! BARFOLDER !
-----
! TOOLROOM ! MARKOUT-STORAGE!      ! MARKOUT!
-----

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Name	Location	Body/Frag/PT
WORKPLACES:		
WORKTABLE	15,19	12,2
14FTHYDROPRESSBRAKE	30,3	19,2
WELDOUT	0,19	10,2
DRILLPRESS	15,16	13,2
PANBRAKE	5,10	11,2
CORNICEBRAKE	10,7	15,2
LEAFBRAKE	4,1	12,2
WORKBENCH	18,4	11,2
SMALLSHEAR	40,10	10,2
PITTSBURGH	27,10	12,2
LAPOUT	32,13	8,2
SCRAPBIN	61,19	10,2
TOOLROOM	30,0	11,2
ROLLER	23,13	8,2
EDGER	30,7	7,2
NIBBLER	17,10	9,2
FLANGEAREA	0,16	12,2
PLASMA-ARC	50,3	12,2
HYDROPRESS	42,13	15,2
SPOTWELDER	35,19	13,2
GASKET-CUTTING-TABLE	0,13	21,2
BARFOLDER	17,1	12,2
14FT.SHEAR	55,16	10,12
PED.GRINDER	30,16	15,2
STORAGEBIN	0,4	10,2
MARKOUT-STORAGE	41,0	17,2

MARKOUT	62,0	9,2	PBEND
SHEETMETAL-STORAGE	52,6	19,2	
SEAMWELDER	55,10	15,2	PBEND

T O O L S :

AWL	WORKTABLE
SETTINGTOOL	WORKTABLE
CPUNCH	WORKTABLE
SCREWDRIVER	WORKTABLE
GLOVES	WORKTABLE
SNIPES	WORKTABLE
BLACKPEN	WORKTABLE
CCLAMPS	WORKTABLE
SQUARE	WORKTABLE
MARKINGGAUGE	WORKTABLE
STEELTAPE	WORKTABLE
DIVIDERS	WORKTABLE
HANDFORMER	WORKTABLE
TEMPLATE	WORKTABLE
CHISEL	WORKTABLE
VISEGRIPS	WORKTABLE
RIVET-HOLE-GUIDE	WORKTABLE
HAMMER	WORKTABLE
CAULKINGGUN	WORKTABLE
BARCLAMP	WORKTABLE
FILE	WORKTABLE
I-4DRILLBIT	WORKTABLE
I-2DRILLBIT	WORKTABLE
5-32DRILLBIT	WORKTABLE
SKETCH	WORKTABLE
7.32DRILL-BIT	WORKTABLE
5.16DRILL-BIT	WORKTABLE
1.4TAP	WORKTABLE
CHUCKKEY	WORKTABLE
9.16WRENCH	WORKTABLE
MASKING-TAPE	WORKTABLE
SAW-BLADES	WORKTABLE
15.16WRENCH	PANBRAKE
FORMINGSTAKES	WORKBENCH
BARCLAMP2	TOOLROOM
DRILLBIT	TOOLROOM
UTILITY-KNIFE	TOOLROOM
GRINDER	TOOLROOM
SABER-SAW2	TOOLROOM
SAW-BLADES2	TOOLROOM
UNISHEAR2	TOOLROOM
1-4PUNCH	PLASMA-ARC
3-8PUNCH	PLASMA-ARC
7-16PUNCH	PLASMA-ARC
1-2PUNCH	PLASMA-ARC
9-16PUNCH	PLASMA-ARC
5-8PUNCH	PLASMA-ARC
11-16PUNCH	PLASMA-ARC
3-4PUNCH	PLASMA-ARC
CLAMP	PLASMA-ARC
STRIPER	PLASMA-ARC
DIE	PLASMA-ARC
ALLENWRENCH	SEAMWELDER

OBJECTS:

SHEETMETAL	WORKTABLE	
DAMPERPARTS2	WORKTABLE	
RIVETS:F	WORKTABLE	
SHEETMETALSCRAP	SCRAPBIN	
BRUSH	TOOLROOM	
BOLTS	TOOLROOM	FRAG
BLUE	TOOLROOM	
FLANGES	FLANGEAREA	
TAPE-CONTAINER	PLASMA-ARC	
COMPUTER-TAPE	PLASMA-ARC	
RUBBER	GASKET-CUTTING-TABLE	
DAMPERPARTS	STORAGEBIN	
CART	MARKOUT-STORAGE	FRAG
SHEETMETAL2:F	MARKOUT-STORAGE	
S.M.CART	SHEETMETAL-STORAGE	
GAUGED-SHEETMETAL	SHEETMETAL-STORAGE	
PANEL-LIGHTS	SEAMWELDER	
EQUIPMENT:		
RIVETGUN	WORKTABLE	1.5 S
DRILLMOTOR	WORKTABLE	2 S
UNISHEAR	WORKTABLE	66 S
SABER-SAW	WORKTABLE	24 S
14FTHYDROPRESSBRAKE-FOOTFEDAL	14FTHYDROPRESSBRAKE	9,5 S
TAACKWELDER	WELDOUT	1 S
DRILLPRESS-BUTTON	DRILLPRESS	3.2 S
PANBRAKE-LEVER	PANBRAKE	32 S
CORNICEBRAKE-LEVER	CORNICEBRAKE	17 S
LEAFBRAKE-LEVER	LEAFBRAKE	7 S
EASYEDGER	WORKBENCH	30 S
HAND-ROLLER	WORKBENCH	
FOOTPEDAL	SMALLSHEAR	2 S
PITTSBURGH-BUTTON	PITTSBURGH	10 S
LAPOUT-SWITCH	LAPOUT	5 S
TAPINGMOTOR	TOOLROOM	
ROLLER-BUTTON	ROLLER	37 S
EDGER-SWITCH	EDGER	17 S
NIBBLER-BUTTON	NIBBLER	31 S
TOOLLOCK-SWITCH	PLASMA-ARC	
SPOTWELDER-FOOTPEDAL	SPOTWELDER	2 S
BARFOLDER-LEVER	GASKET-CUTTING-TABLE	5.8 S
14FT.SHEAR-FOOTPE"rDALL	14FT.SHEAR	1.4 S
CARRIAGE-SPEED-SWITCH	SEAMWELDER	
VOLTAGE-METER-SWITCH	SEAMWELDER	
AMP-METER-SWITCH	SEAMWELDER	
ON-OFF-SWITCH	SEAMWELDER	
CARRIAGE-STOP	SEAMWELDER	
WIRE-FEED-SWITCH	SEAMWELDER	
CENTERING-DEVICE	SEAMWELDER	
CLAMPING-DEVICE-FOOT-SWITCH	SEAMWELDER	
CARRIAGE-TRACK	SEAMWELDER	
SEQUENCE-START-SWITCH	SEAMWELDER	1 M
SEAMWELDER-LATCH	SEAMWELDER	
TORCH-UP-AND-DOWN-SWITCH	SEAMWELDER	
OPERATORS:		
FITTER	WORKTABLE	28,20 B

From

To

Steps

WORKTABLE	14FTHYDROPRESSBRAKE	54
WORKTABLE	WELDOUT	29
WORKTABLE	DRILLPRESS	20
WORKTABLE	PANBRAKE	33
WORKTABLE	CORNICEBRAKE	32
WORKTABLE	LEAFBRAKE	41
WORKTABLE	WORKBENCH	38
WORKTABLE	SMALLSHEAR	35
WORKTABLE	PITTSBURGH	33
WORKTABLE	LAYOUT	31
WORKTABLE	SCRAPBIN	32
WORKTABLE	TOOLROOM	52
WORKTABLE	ROLLER	30
WORKTABLE	EDGER	36
WORKTABLE	NIBBLER	20
WORKTABLE	FLANGEAREA	90
WORKTABLE	PLASMA-ARC	73
WORKTABLE	HYDROPRESS	55
WORKTABLE	SPOTWELDER	29
WORKTABLE	GASKET-CUTTING-TABLE	54
WORKTABLE	BARFOLDER	38
WORKTABLE	14FT.SHEAR	85
WORKTABLE	PED.GRINDER	22
WORKTABLE	STORAGEBIN	46
WORKTABLE	MARKOUT-STORAGE	87
WORKTABLE	MARKOUT	90
WORKTABLE	SHEETMETAL-STORAGE	90
WORKTABLE	SEAMWELDER	77
14FTHYDROPRESSBRAKE	WELDOUT	66
14FTHYDROPRESSBRAKE	DRILLPRESS	38
14FTHYDROPRESSBRAKE	PANBRAKE	44
14FTHYDROPRESSBRAKE	C O R N I C E B R A K E	40
14FTHYDROPRESSBRAKE	LEAFBRAKE	35
14FTHYDROPRESSBRAKE	WORKBENCH	36
14FTHYDROPRESSBRAKE	SMALLSHEAR	25
14FTHYDROPRESSBRAKE	PITTSBURGH	32
14FTHYDROPRESSBRAKE	LAYOUT	30
14FTHYDROPRESSBRAKE	SCRAPBIN	35
14FTHYDROPRESSBRAKE	TOOLROOM	19
14FTHYDROPRESSBRAKE	ROLLER	33
14FTHYDROPRESSBRAKE	EDGER	27
14FTHYDROPRESSBRAKE	NIBBLER	22
14FTHYDROPRESSBRAKE	FLANGEAREA	91
14FTHYDROPRESSBRAKE	PLASMA-ARC	24
14FTHYDROPRESSBRAKE	HYDROPRESS	8
14FTHYDROPRESSBRAKE	SPOTWELDER	27
14FTHYDROPRESSBRAKE	GASKET-CUTTING-TABLE	66
14FTHYDROPRESSBRAKE	BARFOLDER	31
14FTHYDROPRESSBRAKE	14FT.SHEAR	34
14FTHYDROPRESSBRAKE	PED.GRINDER	34
14FTHYDROPRESSBRAKE	STORAGEBIN	58
14FTHYDROPRESSBRAKE	MARKOUT-STORAGE	36
14FTHYDROPRESSBRAKE	MARKOUT	40
14FTHYDROPRESSBRAKE	SHEETMETAL-STORAGE	45
14FTHYDROPRESSBRAKE	SEAMWELDER	20
WELDOUT	DRILLPRESS	28
WELDOUT	PANBRAKE	28
WELDOUT	CORNICEBRAKE	28

WELDOUT	LEAFBRAKE	47
WELDOUT	WORKBENCH	44
WELDOUT	SMALLSHEAR	49
WELDOUT	PITTSBURGH	38
WELDOUT	LAYOUT	45
WELDOUT	SCRAPBIN	47
WELDOUT	TOOLROOM	63
WELDOUT	ROLLER	35
WELDOUT	EDGER	42
WELDOUT	NIBBLER	37
WELDOUT	FLANGEAREA	83
WELDOUT	PLASMA-ARC	88
WELDOUT	HYDROPRESS	62
WELDOUT	SPOTWELDER	26
WELDOUT	GASKET-CUTTING-TABLE	46
WELDOUT	BARFOLDER	31
WELDOUT	14FT. SHEAR	90
WELDOUT	PED. GRINDER	34
WELDOUT	STORAGEBIN	37
WELDOUT	MARKOUT-STORAGE	91
WELDOUT	MARKOUT	90
WELDOUT	SHEETMETAL-STORAGE	90
WELDOUT	SEAMWELDER	92
DRILLPRESS	PANBRAKE	27
DRILLPRESS	CORNICEBRAKE	19
DRILLPRESS	LEAFBRAKE	22
DRILLPRESS	WORKBENCH	17
DRILLPRESS	SMALLSHEAR	19
DRILLPRESS	PITTSBURGH	10
DRILLPRESS	LAYOUT	11
DRILLPRESS	SCRAPBIN	28
DRILLPRESS	TOOLROOM	33
DRILLPRESS	ROLLER	9
DRILLPRESS	EDGER	13
DRILLPRESS	NIBBLER	4
DRILLPRESS	FLANGEAREA	75
DRILLPRESS	PLASMA-ARC	57
DRILLPRESS	HYDROPRESS	38
DRILLPRESS	SPOTWELDER	20
DRILLPRESS	GASKET-CUTTING-TABLE	41
DRILLPRESS	BARFOLDER	18
DRILLPRESS	14FT. SHEAR	69
DRILLPRESS	FED. GRINDER	13
DRILLPRESS	STORAGEBIN	29
DRILLPRESS	MARKOUT-STORAGE	70
DRILLPRESS	MARKOUT	74
DRILLPRESS	SHEETMETAL-STORAGE	90
DRILLPRESS	SEAMWELDER	61
PANBRAKE	CORNICEBRAKE	5
PANBRAKE	LEAFBRAKE	25
PANBRAKE	WORKBENCH	20
PANBRAKE	SMALLSHEAR	27
PANBRAKE	PITTSBURGH	18
PANBRAKE	LAYOUT	20
PANBRAKE	SCRAPBIN	36
PANBRAKE	TOOLROOM	40
PANBRAKE	ROLLER	19
PANBRAKE	EDGER	17
PANBRAKE	NIBBLER	13
PANBRAKE	FLANGEAREA	62

PANBRAKE	PLASMA-ARC	61
PANBRAKE	HYDROPRESS	47
PANBRAKE	SPOTWELDER	30
PANBRAKE	GASKET-CUTTING-TABLE	24
PANBRAKE	BARFOLDER	24
PANBRAKE	14FT.SHEAR	72
PANBRAKE	PED.GRINDER	22
PANBRAKE	STORAGEBIN	15
PANBRAKE	MARKOUT-STORAGE	74
PANBRAKE	MARKOUT	78
PANBRAKE	SHEETMETAL-STORAGE	90
PANBRAKE	SEAMWELDER	65
CORNICEBRAKE	LEAFBRAKE	47
CORNICEBRAKE	WORKBENCH	16
CORNICEBRAKE	SMALLSHEAR	22
CORNICEBRAKE	PITTSBURGH	13
CORNICEBRAKE	LAYOUT	17
CORNICEBRAKE	SCRAPBIN	
CORNICEBRAKE	TOOLROOM	2
CORNICEBRAKE	ROLLER	15
CORNICEBRAKE	EDGER	15
CORNICEBRAKE	NIBBLER	9
CORNICEBRAKE	FLANGEAREA	65
CORNICEBRAKE	PLASMA-ARC	58
CORNICEBRAKE	HYDROPRESS	41
CORNICEBRAKE	SPOTWELDER	26
CORNICEBRAKE-	GASKET-CUTTING-TABLE	27
CORNICEBRAKE	BARFOLDER	21
CORNICEBRAKE	14FT.SHEAR	69
CORNICEBRAKE	PED.GRINDER	18
CORNICEBRAKE	STORAGEBIN	17
CORNICEBRAKE	MARKOUT-STORAGE	70
CORNICEBRAKE	MARKOUT	75
CORNICEBRAKE	SHEETMETAL-STORAGE	86
CORNICEBRAKE	SEAMWELDER	62
LEAFBRAKE	WORKBENCH	5
LEAFBRAKE	SMALLSHEAR	21
LEAFBRAKE	PITTSBURGH	18
LEAFBRAKE	LAYOUT	19
LEAFBRAKE	SCRAPBIN	34
LEAFBRAKE	TOOLROOM	29
LEAFBRAKE	ROLLER	20
LEAFBRAKE	EDGER	18
LEAFBRAKE	NIBBLER	17
LEAFBRAKE	FLANGEAREA	73
LEAFBRAKE	PLASMA-ARC	56
LEAFBRAKE	HYDROPRESS	33
LEAFBRAKE	SPOTWELDER	32
LEAFBRAKE	GASKET-CUTTING-TABLE	43
LEAFBRAKE	BARFOLDER	8
LEAFBRAKE	14FT.SHEAR	67
LEAFBRAKE	PED.GRINDER	21
LEAFBRAKE	STORAGEBIN	21
LEAFBRAKE	MARKOUT-STORAGE	68
LEAFBRAKE	MARKOUT	74
LEAFBRAKE	SHEETMETAL-STORAGE	76
LEAFBRAKE	SEAMWELDER	61
WORKBENCH	SMALLSHEAR	19
WORKBENCH	PITTSBURGH	12
WORKBENCH	LAYOUT	14

WORKBENCH	SCRAPBIN	27
WORKBENCH	TOOLROOM	30
WORKBENCH	ROLLER	18
WORKBENCH	EDGER	13
WORKBENCH	NIBBLER	13
WORKBENCH	FLANGEAREA	76
WORKBENCH	PLASMA-ARC	53
WORKBENCH	HYDROPRESS	35
WORKBENCH	SPOTWELDER	23
WORKBENCH	GASKET-CUTTING-TABLE	40
WORKBENCH	BARFOLDER	10
WORKBENCH	14FT. SHEAR	63
WORKBENCH	PED. GRINDER	17
WORKBENCH	STORAGEBIN	24
WORKBENCH	MARKOUT-STORAGE	65
WORKBENCH	MARKOUT	70
WORKBENCH	SHEETMETAL-STORAGE	80
WORKBENCH	SEAMWELDER	58
SMALLSHEAR	PITTSBURGH	12
SMALLSHEAR	LAPOUT	10
SMALLSHEAR	SCRAPBIN	16
SMALLSHEAR	TOOLROOM	19
SMALLSHEAR	ROLLER	6
SMALLSHEAR	EDGER	13
SMALLSHEAR	NIBBLER	16
SMALLSHEAR	FLANGEAREA	83
SMALLSHEAR	PLASMA-ARC	31
SMALLSHEAR	HYDROPRESS	24
SMALLSHEAR	SPOTWELDER	14
SMALLSHEAR	GASKET-CUTTING-TABLE	58
SMALLSHEAR	BARFOLDER	14
SMALLSHEAR	14FT. SHEAR	42
SMALLSHEAR	PED. GRINDER	9
SMALLSHEAR	STORAGEBIN	37
SMALLSHEAR	MARKOUT-STORAGE	42
SMALLSHEAR	MARKOUT	47
SMALLSHEAR	SHEETMETAL-STORAGE	59
SMALLSHEAR	SEAMWELDER	31
PITTSBURGH	LAPOUT	3
PITTSBURGH	SCRAPBIN	18
PITTSBURGH	TOOLROOM	25
PITTSBURGH	ROLLER	8
PITTSBURGH	EDGER	8
PITTSBURGH	NIBBLER	5
PITTSBURGH	FLANGEAREA	75
PITTSBURGH	PLASMA-ARC	53
PITTSBURGH	HYDROPRESS	16
PITTSBURGH	SPOTWELDER	14
PITTSBURGH	GASKET-CUTTING-TABLE	37
PITTSBURGH	BARFOLDER	12
PITTSBURGH	14FT. SHEAR	63
PITTSBURGH	PED. GRINDER	7
PITTSBURGH	STORAGEBIN	29
PITTSBURGH	MARKOUT-STORAGE	64
PITTSBURGH	MARKOUT	70
PITTSBURGH	SHEETMETAL-STORAGE	73
PITTSBURGH	SEAMWELDER	56
LAPOUT	SCRAFBIN	15
LAPOUT	TOOLROOM	22
LAPOUT	ROLLER	5

LAPOUT	EDGER	8
LAPOUT	NIBBLER	8
LAPOUT	FLANGEAREA	78
LAPOUT	PLASMA-ARC	46
LAPOUT	HYDROPRESS	29
LAPOUT	SPOTWELDER	12
LAPOUT	GASKET-CUTTING-TABLE	42
LAPOUT	BARFOLDER	11
LAPOUT	14FT.SHEAR	57
LAPOUT	PED.GRINDER	4
LAPOUT	STORAGEBIN	25
LAPOUT	MARKOUT-STORAGE	58
LAPOUT	MARKOUT	62
LAPOUT	SHEETMETAL-STORAGE	72
LAPOUT	SEAMWELDER	50
SCRAPBIN	TOOLROOM	32
SCRAPBIN	ROLLER	12
SCRAPBIN	EDGER	23
SCRAPBIN	NIBBLER	63
SCRAPBIN	FLANGEAREA	90
SCRAPBIN	PLASMA-ARC	24
SCRAPBIN	HYDROPRESS	21
SCRAPBIN	SPOTWELDER	6
SCRAPBIN	GASKET-CUTTING-TABLE	90
SCRAPBIN	BARFOLDER	25
SCRAPBIN	14FT.SHEAR	13
SCRAPBIN	PED.GRINDER	15
SCRAPBIN	STORAGEBIN	46
SCRAPBIN	MARKOUT-STORAGE	18
SCRAPBIN	MARKOUT	19
SCRAPBIN	SHEETMETAL-STORAGE	10
SCRAPBIN	SEAMWELDER	26
TOOLROOM	ROLLER	28
TOOLROOM	EDGER	25
TOOLROOM	NIBBLER	27
TOOLROOM	FLANGEAREA	90
TOOLROOM	PLASMA-ARC	42
TOOLROOM	HYDROPRESS	21
TOOLROOM	SPOTWELDER	31
TOOLROOM	GASKET-CUTTING-TABLE	57
TOOLROOM	BARFOLDER	22
TOOLROOM	14FT.SHEAR	51
TOOLROOM	PED.GRINDER	25
TOOLROOM	STORAGEBIN	48
TOOLROOM	MARKOUT-STORAGE	50
TOOLROOM	MARKOUT	54
TOOLROOM	SHEETMETAL-STORAGE	62
TOOLROOM	SEAMWELDER	43
ROLLER	EDGER	12
ROLLER	NIBBLER	11
ROLLER	FLANGEAREA	81
ROLLER	PLASMA-ARC	50
ROLLER	HYDROPRESS	33
ROLLER	SPOTWELDER	10
ROLLER	GASKET-CUTTING-TABLE	46
ROLLER	BARFOLDER	15
ROLLER	14FT.SHEAR	60
ROLLER	PED.GRINDER	5
ROLLER	STORAGEBIN	35
ROLLER	MARKOUT-STORAGE	63

ROLLER	MARKOUT	66
ROLLER	SHEETMETAL-STORAGE	75
ROLLER	SEAMWELDER	53
EDGER	NIBBLER	9
EDGER	FLANGEAREA	75
EDGER	PLASMA-ARC	48
EDGER	HYDROPRESS	29
EDGER	SPOTWELDER	19
EDGER	GASKET-CUTTING-TABLE	37
EDGER	BARFOLDER	9
EDGER	14FT.SHEAR	59
EDGER	PED.GRINDER	5
EDGER	STORAGEBIN	26
EDGER	MARKOUT-STORAGE	60
EDGER	MARKOUT	66
EDGER	SHEETMETAL-STORAGE	73
EDGER	SEAMWELDER	52
NIBBLER	FLANGEAREA	63
NIBBLER	PLASMA-ARC	55
NIBBLER	HYDROPRESS	33
NIBBLER	SPOTWELDER	17
NIBBLER	GASKET-CUTTING-TABLE	39
NIBBLER	BARFOLDER	1 5
NIBBLER	14FT.SHEAR	66
NIBBLER	PED.GRINDER	10
NIBBLER	STORAGEBIN	23
NIBBLER	MARKOUT-STORAGE	68
N I B B L E R	MARKOUT	73
NIBBLER	SHEETMETAL-STORAGE	83
NIBBLER	SEAMWELDER	58
FLANGEAREA	PLASMA-ARC	90
FLANGEAREA	HYDROPRESS	8 5
FLANGEAREA	SPOTWELDER	82
FLANGEAREA	GASKET-CUTTING-TAELE	30
FLANGEAREA	BARFOLDER	74
FLANGEAREA	14FT.SHEAR	90
FLANGEAREA	PED.GRINDER	73
FLANGEAREA	STORAGEBIN	54
FLANGEAREA	MARKOUT-STORAGE	90
FLANGEAREA	MARKOUT	90
FLANGEAREA	SHEETMETAL-STORAGE	90
FLANGEAREA	SEAMWELDER	90
PLASMA-ARC	HYDROPRESS	21
PLASMA-ARC	SPOTWELDER	41
PLASMA-ARC	GASKET-CUTTING-TABLE	82
PLASMA-ARC	BARFOLDER	46
PLASMA-ARC	14FT.SHEAR	18
PLASMA-ARC	PED.GRINDER	50
PLASMA-ARC	STORAGEBIN	32
PLASMA-ARC	MARKOUT-STORAGE	10
PLASMA-ARC	MARKOUT	14
PLASMA-ARC	SHEETMETAL-STORAGE	35
PLASMA-ARC	SEAMWELDER	11
HYDROPRESS	SPOTWELDER	26
HYDROPRESS	GASKET-CUTTING-TABLE	64
HYDROPRESS	BARFOLDER	31
HYDROPRESS	14FT.SHEAR	32
HYDROPRESS	PED.GRINDER	33
HYDRDPRESS	STORAGEBIN	53
HYDROPRESS	MARKOUT-STORAGE	33

HYDROPRESS	MARKOUT	8
HYDROPRESS	SHEETMETAL-STORAGE	42
HYDROPRESS	SEAMWELDER	24
SPOTWELDER	GASKET-CUTTING-TABLE	54
SPOTWELDER	BARFOLDER	22
S P O T W E L D E R	14FT.SHEAR	52
SPOTWELDER	PED.GRINDER	9
SPOTWELDER	STORAGEBIN	38
SPOTWELDER	MARKOUT-STORAGE	52
S P O T W E L D E R	MARKOUT	58
SPOTWELDER	SHEETMETAL-STORAGE	68
SPOTWELDER	SEAMWELDER	45
GASKET-CUTTING-TABLE	BARFOLDER	42
GASKET-CUTTING-TABLE	14FT.SHEAR	90
GASKET-CUTTING-TABLE	PED.GRINDER	46
GASKET-CUTTING-TABLE	STORAGEBIN	15
GASKET-CUTTING-TABLE	MARKOUT-STORAGE	90
GASKET-CUTTING-TABLE	MARKOUT	90
GASKET-CUTTING-TABLE	SHEETMETAL-STORAGE	90
GASKET-CUTTING-TABLE	SEAMWELDER	86
BARFOLDER	14FT.SHEAR	57
BARFOLDER	PED.GRINDER	16
BARFOLDER	STORAGEBIN	32
BARFOLDER	MARKOUT-STORAGE	58
BARFOLDER	MARKOUT	63
BARFOLDER	SHEETMETAL-STORAGE	73
BARFOLDER	SEAMWELDER	50
14FT.SHEAR	PED.GRINDER	61
14FT.SHEAR	STORAGEBIN	84
14FT.SHEAR	MARKOUT-STORAGE	14
14FT.SHEAR	MARKOUT	14
14FT.SHEAR	SHEETMETAL-STORAGE	17
14FT.SHEAR	SEAMWELDER	45
PED.GRINDER	STORAGEBIN	32
PED.GRINDER	MARKOUT-STORAGE	63
PED.GRINDER	MARKOUT	66
PED.GRINDER	SHEETMETAL-STORAGE	7
PED.GRINDER	SEAMWELDER	54
STORAGEBIN	MARKOUT-STORAGE	86
STORAGEBIN	MARKOUT	90
STORAGEBIN	SHEETMETAL-STORAGE	90
STORAGEBIN	SEAMWELDER	78
MARKOUT-STORAGE	MARKOUT	5
MARKOUT-STORAGE	SHEETMETAL-STORAGE	20
MARKOUT-STORAGE	SEAMWELDER	21
MARKOUT	SHEETMETAL-STORAGE	20
MARKOUT	SEAMWELDER	25
SHEETMETAL-STORAGE	SEAMWELDER	30

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Name Ext	Description	Protect- ion	Createc
ACOVER.M26	DEBURR ACCESS HOLE AND COVER	< 33 >	27-May-8
ACOVER.M25	CUT GASKET FOR ACCESS COVER	< 33 >	27-May-8
ACOVER.M24	DRILL AND TAP SHEETMETAL FOR ACCESS COVER	< 33 >	27-May-8
ACOVER.M23	SPOTWELD SHEETMETAL FOR ACCESS COVER	< 33 >	27-May-8
ACOVER.M22	SHEAR ACCESS HOLE FOR ACCESS COVER	< 33 >	27-May-8
ACOVER.M21	SHEAR SHEETMETAL FOR ACCESS COVER	< 33 >	27-May-8
ACOVER.M20	MARK OUT ACCESS COVER AND BACK UP PLATES	< 33 >	27-May-8
ACOVER.M07	BEBURR ACCESS HOLE AND ACCESS COVER	< 33 >	27-May-8
ACOVER.M06	CUT GASKET FOR ACCESS COVER	< 33 >	27-May-8
ACOVER.M05	DRILL AND TAP SHEETMETAL FOR ACCESS COVER	< 33 >	27-May-8
ACOVER.M04	SPOTWELD SHEETMETAL FOR ACCESS COVER	< 33 >	27-May-8
ACOVER.M03	SHEAR ACCESS HOLE FOR ACCESS COVER	< 33 >	27-May-8
ACOVER.M02	SHEAR SHEETMETAL FOR ACCESS COVER	< 33 >	26-May-8
ACOVER.M01	MARK OUT ACCESS COVER AND BACK-UP PLATES	< 33 >	26-May-8
BARB .E01	MARK OUT TRANSFORMER	< 33 >	26-Jul-8
BDAMP . M05	ASSEMBLE BALANCE DAMPER	< 33 >	23-Jun-8
BDAMP .M04	DRILL SHEETMETAL FOR BALANCE DAMPER	< 33 >	22-Jun-8
BDAMP . M03	BEND SHEETMETAL FOR BALANCE DAMPER	< 33 >	22-Jun-8
BDAMP . M02	SHEAR SHEETMETAL FOR BALANCE DAMPER	< 33 >	22-Jun-8
BDAMP . M01	MARK OUT BALANCE DAMFER	< 33 >	22-Jun-8
BLKEND.M24	BEND SHEETMETAL UP 90 DEGREES FOR BLANK END	< 33 >	6-Jul-8
BLKEND. M23	BEND PARTIAL BENDS FOR BLANK END	< 33 >	6-Jul-8
BLKEND. M22	SHEAR CORNERS FOR BLANK END	< 33 >	31-May-8
BLKEND.M21	SHEAR SHEETMETAL FOR BLANK END	< 33 >	6-Jul-8
BLKEND.M20	MARK OUT BLANK END	< 33 >	31-May-8
BLKEND.M05	BEND SHEETMETAL UP 90 DEGREES FOR BLANK END	< 33 >	6-Jul-8
BLKEND.M04	BEND PARTIAL BENDS FOR BLANK END	< 33 >	31-May-8
BLKEND.M03	SHEAR CORNERS FOR BLANK END	< 33 >	6-Jul-8
BLKEND.de	SHEAR SHEETMETAL FOR BLANK END	< 33 >	6-Jul-8
BLKEND.M01	MARK OUT BLANK END	< 33 >	31-May-8
FIT .W11	ASSEMBLY AREA (EXPANDED 4-12-83)	< 33 >	5-May-8
F02RC .M54	FORM RADIUS ON COLLAR CORNERS FOR F.O. TO R.C.	< 33 >	17-May-8
F02RC .M53	BEND RADIUS FOR FLAT OVAL TO RADIUS CORNERS	< 33 >	17-May-8
F02RC .M52	CUT RADIUS ON CORNERS FOR F.O. TO R.C.	< 33 >	17-May-8
F02RC .M51	SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS	< 33 >	17-May-8
F02RC .M50	MARK OUT FLAT OVAL TO RADIUS CORNERS	< 33 >	17-May-8
F02RC .M39	RIVET FLAT OVAL TO RADIUS CORNERS	< 33 >	1-Jul-8
F02RC .M37	TACK WELD FLAT OVAL TO RADIUS CORNERS	< 33 >	1-Jul-8
F02RC .M36	ASSEMBLE FLAT OVAL TO RADIUS CORNERS	< 33 >	1-Jul-8
F02RC .M35	BEND RADIUS ON FLAT OVAL TO RADIUS CORNERS	< 33 >	1-Jul-8
F02RC .M34	FORM RADIUS ON COLLARS FOR F.O. TO R.C. WELD	< 33 >	9-May-8
F02RC .M33	FORM LAP ENDS FOR FLAT OVAL TO RADIUS CORNERS	< 33 >	9-May-8
F02RC .M32	SHEAR RADIUS ON FLAT OVAL TO RADIUS CORNERS	< 33 >	9-May-8
F02RC .M31	SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS	< 33 >	1-Jul-8
F02RC .M30	MARK OUT FLAT OVAL TO RADIUS CORNERS	< 33 >	1-Jul-8
F02RC .M09	RIVET FLAT OVAL TO RADIUS CORNERS	< 33 >	1-Jul-8
F02RC .M08	TACK WELD FLAT OVAL TO RADIUS CORNERS	< 33 >	1-Jul-8
F02RC .M07	ASSEMBLE FLAT OVAL TO RADIUS CORNERS	< 33 >	6-May-8
F02RC .M06	BEND SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS	< 33 >	6-May-8
F02RC .M05	ROLL UP FLAT OVAL AND RADIUS CORNERS	< 33 >	5-Mar-8
F02RC .M04	FORM LAP ENDS FOR FLAT OVAL TO RADIUS CORNERS	< 33 >	1-Jul-8

TRANSF.M01	MARK OUT TRANSFORMER	< 33>	8-Mar-8:
VNELBO.M49	DEBURR ACCESS COVER & ACCESS HOLE	< 33>	23-Mar-8:
VNELBO.M48	CUT RUBBER GASKET FOR ACCESS PLATE	< 33>	23-Mar-8:
VNELBO.M47	TAP BOLT HOLES PLATE	< 33>	23-Mar-8:
VNELBO.M46	RIVET VANE TRACK & THROAT & HEEL LAPS	< 33>	23-Mar-8
VNELBO.M45	ASSEMBLE ELBOW WITH VANE TRACK	< 33>	23-Mar-
VNELBO.M44	TACK WELD VANE TURNS TO VANE TRACK	< 33>	23-Mar-8
VNELBO.M43	SPOT WELD BACK UP PLATES TO ACCESS OPENING	< 33>	23-Mar-8
VNELBO.M42	FORM RADIUS ON VANES FOR ELBOW WITH VANE TRACK	< 33>	22-Mar-8
VNELBO.M41	BEND THROAT, HEEL & VANES FOR ELBOW	< 33>	22-Mar-8
VNELBO.M40	POSITION SPACERS IN PITTSBURGH LOACK	< 33>	22-Mar-8
VNELBO.M39	FORM PITTSBURGH LOCK ON VANE TRACK ELBOW	< 33>	22-Mar-8
VNELBO.M38	LAP OUT VANED ELBOW	< 33>	22-Mar-8
VNELBO.M37	SHEAR CHEEKS & ACCESS WITH UNI-SHEAR	< 33>	24-Mar-8
VNELBO.M36	SHEAR CHEEKS, THROAT, HEEL, AND VANE TRACK	< 33>	22-Mar-8
VNELBO.M35	SHEAR 11 GAUGE SHEETMETAL ACCESS COVER & PLATE	< 33>	22-Mar-8
VNELBO.M34	MARK OUT ACCESS COVER AND BACK UP PLATES	< 33>	22-Mar-8
VNELBO.M33	MARK OUT VANE TRACK & VANES FOR ELBOW	< 33>	22-Mar-8
VNELBO.M32	LAYOUT 1/2 THROAT & HEEL WITHOUT TEMPLATES	< 33>	21-Mar-8
VNELBO.M31	MARK OUT 1/2 THROAT, HEEL FOR 22X12 V.T. ELBOW	< 33>	23-Mar-8
VNELBO.M30	MARK OUT CHEEKS FOR 22'X12' VANE TRACK ELBOW	< 33>	23-Mar-8
VNELBO.M20	ASSEMBLE END PIECE TO ELBOW WITH VANE TRACK	< 33>	18-Mar-8
VNELBO.M19	DRILL & TAP--MAKE GASKET FOR ACCESS PLATE	< 33>	18-Mar-8
VNELBO.M18	TACK WELD VANE TRACK TO ELBOW	< 33>	17-Mar-8
VNELBO.M17	ASSEMBLE CHEEKS, THROAT & HEEL FOR VANE TRACK ELBOW	< 33>	17-Mar-8
VNELBO.M1S	SPOT WELD ACCESS COVER TO BACK UP PLATE	< 33>	17-Mar-8
VNELBO.M1S	TACK WELD VANE TRACK ASSEMBLY FOR ELBOW	< 33>	17-Mar-8
VNELBO.M13	BEND THROAT, HEEL XI END PIECE FOR VANE ELBOW	< 33>	17-Mar-8
VNELBO.M12	BEND TURN VANES FOR ELBOW WITH VANE TRACK	< 33>	17-Mar-8
VNELBO.M11	BEND END PIECE & FLATTEN HEMMED EDGE ON VANE TURNS	< 33>	17-Mar-8
VNELBO.M10	FORM PITTSBURGH LOCK ON VANE TRACK ELBOW	< 33>	17-Mar-8
VNELBO.M09	LAP OUT VANE ELBOW	< 33>	17-Mar-
VNELBO.M08	BEND HEMMED EDGE ON VANE ELBOW	< 33>	17-Mar-8
VNELBO.M07	SHEAR VANE ELBOW CHEEKS WITH UNI-SHEAR	< 33>	17-Mar-8
VNELBO.M06	SHEAR 90 DEGREE ELBOW WITH VANE TRACK	< 33>	17-Mar-8
VNELBO.M05	SHEAR SHEETMETAL FOR ACCESS COVER	< 33>	17-Mar-8
VNELBO.M04	MARK OUT TURN VANES & END PIECE	< 33>	17-Mar-8
VNELBO.M03	MARK ACCESS COVER & BACK UP PLATE	< 33>	11-Mar-8
VNELBO.M02	MARK OUT THROAT & HEEL FOR VANE TRACK ELBOW	< 33>	11-Mar-8
VNELBO.M01	MARK OUT CHEEKS FOR VANE TRACK ELBOW	< 33>	11-Mar-8
WELD .W01	SHEETMETAL SHOP WELDING BOOTH.	< 33>	15-Feb-8

%THIS DIRECTORY HAS AN INTERNAL STRUCTURAL ERROR.

%PLEASE REPAIR IT WITH FIXDIR!

Operation (DE, PD, CP, H, or EX) ?

STRGHT.M42	CUT LAP CORNERS ON STRAIGHT SECTION	< 33>	7-Jul-83
STRGHT.M41	SHEAR SHEETMETAL FOR STRAIGHT SECTION	< 33>	7-Apr-83
STRGHT.M40	MARK OUT STRAIGHT SECTION	< 33>	7-Apr-83
STRGHT.M35	ASSEMBLE STRAIGHT SECTION	< 33>	7-Jul-83
STRGHT.M34	BEND 90DEGREE BEND IN STRAIGHT SECTION	< 33>	25-Apr-83
STRGHT.M33	FORM PITTSBURGH EDGE ON STRAIGHT SECTION	< 33>	25-Apr-83
STRGHT.M32	CUT CORNERS FOR STRAIGHT SECTION	< 33>	25-Apr-83
STRGHT.M31	SHEAR SHEETMETAL FOR 12'X8' STRAIGHT SECTION	< 33>	7-Jul-83
STRGHT.M30	MARK OUT STRAIGHT SECTION	< 33>	28-Mar-83
STRGHT.M16	ASSEMBLE 11' STRAIGHT SECTION	< 33>	6-Jul-83
STRGHT.M15	BEND 11' STRAIGHT SECTION	< 33>	10-Mar-83
STRGHT.M14	FORM PITTSBURGH ON 11' STRAIGHT SECTION	< 33>	10-Mar-83
STRGHT.M13	LAYOUT 11' STRAIGHT SECTION	< 33>	10-Mar-83
STRGHT.M12	CUT 11' STRAIGHT SECTION CORNERS	< 33>	10-Mar-83
STRGHT.M11	SHEAR 11' STRAIGHT SECTION	< 33>	10-Mar-83
STRGHT.M10	MARK OUT 11' STRAIGHT SECTION (TOP PIECE)	< 33>	10-Mar-83
STRGHT.M09	MARK OUT 11' STRAIGHT (BOTTOM & SIDES)	< 33>	10-Mar-83
STRGHT.M08	ASSEMBLE STRAIGHT PIECE	< 33>	7-Jul-83
STRGHT.M07	BEND STRAIGHT PIECE	< 33>	4-Mar-83
STRGHT.M06	FORM PITTSBURGH ON STRAIGHT PIECE	< 33>	4-Mar-8
STRGHT.M05	FORM LAP OUT FOR STRAIGHT PIECE	< 33>	4-Mar-8
STRGHT.M04	CUT CORNERS ON STRAIGHT PIECE	< 33>	7-Jul-8
STRGHT.M03	SHEAR OUTLINES OF STRAIGHT PIECE	< 33>	7-Jul-8
STRGHT.M02	MARK OUT STRAIGHT SECTION	< 33>	4-Mar-8
STRGHT.M01	MAKE READY SHEETMETAL FOR MARK OUT (STRAIGHT)	< 33>	3-Mar-8
TRANSF.M98	ASSEMBLE TRANSFORMER	< 33>	6-Jul-8
TRANSF.M97	BEND LAPAP ENDS FOR TRANSFORMER	< 33>	22-Jun-8
TRANSF.M96	BEND SHEETMETAL FOR TRANSFORMER	< 33>	22-Jun-8
TRANSF.M95	FORM PITTSBURGH LOCK FOR TRANSFORMER	< 33>	22-Jun-8
TRANSF.M94	FORM LAP END FOR TRANSFORMER	< 33>	22-Jun-8
TRANSF.M93	SHEAR UNEVEN END OF TRANSFORMER	< 33>	21-Jun-8
TRANSF.M92	SHEAR SHEETMETAL FOR TRANSFORMER	< 33>	21-Jun-8
TRANSF.M91	MARK OUT SHEETMETAL TOP FOR TRANSFORMER	< 33>	21-Jun-8
TRANSF.M90	MARK OUT SHEETMETAL FOR TRANSFORMER	< 33>	1-Jul-8
TRANSF.M74	WELD TRANSFORMER	< 33>	19-Jul-8
TRANSF.M68	DEBURR ACCESS HOLE AND COVER FOR TRANSFORMER	< 33>	12-Apr-8
TRANSF.M67	TAP SHEETMETAL BACK-UP PLATES FOR TRANSFORMER	< 33>	12-Apr-8
TRANSF.M66	CUT ACCESS PLATE GASKET FOR TRANSFORMER	< 33>	12-Apr-8
TRANSF.M65	SPOT WELD BACK-UP PLATES TO TRANSFORMER	< 33>	11-Apr-8
TRANSF.M64	BEND SHEETMETAL FOR TRANSFORMER	< 33>	12-Apr-8
TRANSF.M63	CUT SHEETMETAL FOR TRANSFORMER	< 33>	12-Apr-8
TRANSF.M62	SHEAR SHEETMETAL FOR TRANSFORMER	< 33>	12-Apr-8
TRANSF.M61	MARK OUT ACCESS COVER FOR TRANSFORMER	< 33>	11-Apr-8
TRANSF.M60	MARK OUT TRANSFORMER TOP AND BOTTOM	< 33>	11-Apr-8
TRANSF.M54	WELD TRANSFORMER	< 33>	21-Jul-8
TRANSF.M27	ASSEMBLE TRANSFORMER (GREATER THAN 100' SIZE)	< 33>	21-Mar-8
TRANSF.M26	FORM TRANSFORMER AT CORNICE BRAKE	< 33>	18-Mar-6
TRANSF.M25	FORM PITTSBURGH LOCK & EDGE ON TRANSFORMER	< 33>	18-Mar-8
TRANSF.M24	FORM LAP OUT ON TRANSFORMER	< 33>	18-Mar-8
TRANSF.M23	CUT CORNERS ON TRANSFORMER	< 33>	18-Mar-8
TRANSF.M22	SHEAR TRANSFORMER AT 8 FT. SHEAR	< 33>	21-Mar-8
TRANSF.M21	MARK OUT TOP SECTION OF TRANSFORMER	< 33>	21-Mar-8
TRANSF.M20	MARK OUT BOTTOM SECTION OF TRANSFORMER	< 33>	21-Mar-8
TRANSF.M08	ASSEMBLE TRANSFORMER	< 33>	9-Mar-8
TRANSF.M07	BEND TRANSFORMER	< 33>	9-Mar-8
TRANSF.M06	FORM PITTSBURGH LOCK ON TRANSFORMER	< 33>	9-Mar-8
TRANSF.M05	FORM TRANSFORMER LAP	< 33>	9-Mar-8
TRANSF.M04	SHEAR TRANSFORMER ENDS	< 33>	8-Mar-8
TRANSF.M03	SHEAR TRANSFORMER OUT LINES	< 33>	8-Mar-8
TRANSF.M02	MARK OUT TRANSFORMER (TOP)	< 33>	8-Mar-E

OGEE .M26 FORM PITTSBURGH LOCK FOR OGEE	< 33>	7-Apr-8
OGEE .M25 FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE	< 33>	7-Apr-8
OGEE .M24 FORM LAP ENDS FOR OGEE	< 33>	7-Apr-8
OGEE .M23 SHEAR RADIUS ON CHEEKS FOR OGEE	< 33>	7-Apr-8
OGEE .M22 SHEAR SHEETMETAL FOR OGEE	< 33>	7-Apr-r
OGEE .M21 MARK OUT WRAPPERS FOR OGEE	< 33>	7-Apr-
OGEE .M20 MARK OUT CHEEKS FOR OGEE	< 33>	7-Apr-E
OGEE .MO7 CLEAN OGEE BEFORE WELDING	< 33>	6-Apr-E
OGEE .M06 FORM OGEE	< 33>	6-Apr-E
OGEE .M05 FORM LAPOUT FOR OGEE	< 33>	6-Apr-E
OGEE .MO4 SHEAR RADIUS FOR OGEE	< 33>	6-Apr-E
OGEE .M03 SHEAR SHEETMETAL FOR OGEE	< 33>	6-Apr-E
OGEE .M02 MARK OUT WRAPPERS FOR OGEE	< 33>	6-Apr-E
OGEE .MO1 MARK OUT CHEEKS FOR OGEE OFFSET	< 33>	6-Apr-E
OS2RND.M10 WELD OFFSET SQUARE TO ROUND	< 33>	18-Jul-E
OS2RND.M09 RIVET OFFSET SQUARE TO ROUND	< 33>	31-Mar-E
OS2RND.M08 TACK WLD COLLAR TO OFFSET SQUARE TO ROUND	< 33>	31-Mar-E
OS2RND.M07 ASSEMBLE OFFSET SQUARE TO ROUND	< 33>	31-Mar-E
OS2RND.M06 BEND LAP ENDS FOR OFFSET SQUARE TO ROUND	< 33>	31-Mar-E
OS2RND.M05 FORM COLLAR FOR OFFSET SQUARE TO ROUND	< 33>	31-Mar-E
OS2RND.M04 BEND RADIUS FOR OFFSET SQUARE TO ROUND	< 33>	31-Mar-E
OS2RND.M03 SHEAR RADIUS FOR OFFSET SQUARE TO ROUND	< 33>	31-Mar-E
OS2RND.M02 SHEAR OFFSET SQUARE TO ROUND	< 33>	31-Mar-E
OS2RND.M01 MARK OUT OFFSET SQUARE TO ROUND	< 33>	31-Mar-E
OSQ2RN.M29 WELD OFFSET SQUARE TO ROUND	< 33>	18-Jul-E
PSWELD.W02 STUD GUN WELDING	< 33>	5-Aug-E
PSWELD.W01 STUD GUN WELD	< 33>	22-Dec-E
RCT2RC.M39 WELD RECTANGULAR TO RADIUS CORNERS	< 33>	14-Jul-E
RCT2RC.M10 WELD RECTANGULAR TO RADIUS CORNERS	< 33>	21-Jul-E
R02RO .M25 WELD ROUND TO ROUND	< 33>	21-Jul-E
R02RO .M07 WELD ROUND TO ROUND	< 33>	21-Jul-E
R02RO .M06 TACK WELD ROUND TO ROUND	< 33>	2-Mar
R02RO .M05 FORM ROUND TO ROUND WITH ROLLER (ROLL FORMER)	< 33>	2-Mar-
R02RO .MO4 SHEAR ROUND TO ROUND WITH UNI-SHEAR	< 33>	2-Mar-E
R02RO .M03 SHEAR ROUND TO ROUND (8 FT. SHEAR)	< 33>	1-Mar-E
R02RO .MO2 MARK OUT ROUND TO ROUND	< 33>	3-Mar-E
R02RO .MO1 MAKE READY SHEETMETAL FOR MARK OUT (R02RO)	< 33>	3-Mar-E
SQ2FO .M08 WELD SQUARE TO FLAT OVAL	< 33>	21-Jul-E
SQ2RND.M38 RIVET SQUARE TO ROUND	< 33>	8-Jul-E
SQ2RND.M36 TACK WELD SQUARE TO ROUND	< 33>	24-Mar-E
SQ2RND.M35 ASSEMBLE SQUARE TO ROUND	< 33>	24-Mar-E
SQ2RND.M34 BEND RADIUS FOR SQUARE TO ROUND	< 33>	24-Mar-E
SQ2RND.M33 FORM COLLAR FOR SQUARE TO ROUND	< 33>	24-Mar-E
SQ2RND.M32 SHEAR RADIUS FOR SQUARE TO ROUND	< 33>	8-Jul-E
SQ2RND.M31 SHEAR 22 GAUGE SHEETMETAL FOR SQUARE TO ROUND	< 33>	8-Jul-E
SQ2RND.M30 MARK OUT SQUARE TO ROUND	< 33>	23-Mar-E
SQ2RND.M09 RIVET SQUARE TO ROUND (#3)	< 33>	28-Feb-E
SQ2RND.M08 TACK WELD COLLAR TO SQUARE TO ROUND (#3)	< 33>	28-Feb-E
SQ2RND.M07 ASSEMBLE SQUARE TO ROUND (#3)	< 33>	28-Feb-E
SQ2RND.M06 FORM SQUARE TO ROUND DIAMETER	< 33>	28-Feb-E
SQ2RND.M05 FORM SQUARE TO ROUND (#3) RADIUS	< 33>	28-Feb-E
SQ2RND.M04 SHEAR SQUARE TO ROUND RADIUS LINES & CORNERS	< 33>	28-Feb-E
SQ2RND.M03 SHEAR OUTLINE OF SQUARE TO ROUND (#3)	< 33>	8-Jul-
SQ2RND.M02 MARK OUT SQUARE TO ROUND (#3)	< 33>	24-Feb-E
SQ2RND.M01 MAKE READY SHEETMETAL FOR MARK OUT (SQ2RND)	< 33>	28-Feb-
STRGHT.M74 WELD STRAIGHT SECTION	< 33>	21-Jul-E
STRGHT.M46 ASSEMBLE TOP TO BOTTOM OF STRAIGHT SECTION	< 33>	8-Jul-E
STRGHT.M45 BEND UP 90 DEGREE SIDES ON STRAIGHT SECTION	< 33>	7-Apr-E
STRGHT.M44 FORM PITTSBURGH LOCKS ON STRAIGHT SECTION	< 33>	7-Apr
STRGHT.M43 FORM LAP END OFFSET ON STRAIGHT SECTION	< 33>	7-Apr-

FLOVAL.M09	RIVET FLAT OVAL ASSEMBLY	< 33>	25-Mar-8
FLOVAL.M07	TACK COLLAR TO FLAT OVAL	< 33>	25-Mar-8
FLOVAL.M06	ASSEMBLE FLAT OVAL	< 33>	25-Mar-8
FLOVAL.M05	BEND RADIUS FOR FLAT OVAL .	< 33>	25-Mar-8
FLOVAL.M04	FORM COLLAR FOR FLAT OVAL	< 33>	25-Mar-8
FLOVAL.M03	SHEAR RADIUS FOR FLAT OVAL	< 33>	25-Mar-8
LOVAL.M02	SHEAR SHEETMETAL FOR FLAT OVAL	< 33>	24-Mar-8
FLOVAL.M01	MARK OUT FLAT OVAL	< 33>	24-Mar-8
FO2RC .M38	WELD FLAT OVAL TO RADIUS CORNERS	< 33>	14-Jul-8
FO2RC .M10	WELD FLAT OVAL TO RADIUS CORNERS	< 33>	14-Jul-8
GELBOW.M25	WELD 5 GORED ELBOW	< 33>	14-Jul-8
GELBOW.M06	WELD 5 GORED ELBOW	< 33>	14-Jul-8
GELBOW.M05	ASSEMBLE 5 GORED ELBOW	< 33>	31-Mar-8
GELBOW.M04	FORM 12'DIAMETER ON ELBOW GORES	< 33>	31-Mar-8
GELBOW.M03	SHEAR RADIUS FOR 5 GORED ELBOW	< 33>	31-Mar-8
GELBOW.M02	SHEAR SHEETMETAL FOR 5 GORED ELBOW	< 33>	31-Mar-8
GELBOW.,M01	MARK OUT 5 GORED ELBOW	< 33>	31-Mar-8
MARKOT.W02	MARK OUT AREA(10'X4') 2ND PHASE	< 33>	21-Jan-8
MARKOT.W01	MARK OUT AREA (10'X4')	< 33>	20-Jan-8
MARKOT.M01	TRANSPORT FOR MARK OUT	< 33>	22-Feb-8
MARKOT.M00	SET UP SHEETMETAL (1 SHEET) FOR MARK OUT	< 33>	2-Mar-8
MSRING.W03	MACHINE SHOP MANHOLE-RING	< 33>	8-sep-8
MSRING.W01	MSRING (2)	< 33>	22-Dec-8
OFFSET.M61	MARK OUT WRAPPERS FOR OFFSET	< 33>	28-APr-8
OFFSET.M60	MARK OUT CHEEKS FOR OFFSET	< 33>	28-Apr-8
OFFSET.M49	ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET	< 33>	8-Apr-8
OFFSET.M48	FORM RADIUS ON WRAPPERS FOR OFFSET	< 33>	8-Apr-8
OFFSET.M47	POSITION SPACERS FOR OFFSET	< 33>	8-Apr-8
OFFSET.M46	FORM PITTSBURGH LOCK FOR OFFSET	< 33>	8-Apr-8
OFFSET.M45	FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET	< 33>	8-Apr-8
OFFSET.M44	FORM LAP ENDS FOR OFFSET	< 33>	8-APr-E
OFFSET.M43	SHEAR RADIUS ON CHEEKS FOR OFFSET	< 33>	21-jul-8
OFFSET.M42	SHEAR SHEETMETAL FOR OFFSET	< 33>	8-Apr-E
OFFSET.M41	MARK OUT WRAPPERS FOR OFFSET	< 33>	11-APr-8
OFFSET.M40	MARK OUT CHEEKS FOR OFFSET	< 33>	8-Apr-E
OFFSET.M32	RIVET ASSEMBLY	< 33>	6-Apr-8
OFFSET.M31	ASSEMBLE OFFSET	< 33>	6-Apr-E
OFFSET.M30	FORM RADIUS ON WRAPPERS FOR OFFSET	< 33>	5-Apr-E
OFFSET.M29	POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET	< 33>	5-Apr-E
OFFSET.M28	BEND 90DEGREE BENDS IN STRAIGHT FOR OFFSET	< 33>	5-Apr-E
OFFSET.M27	FORM PITTSBURGH LOCKS FOR OFFSET	< 33>	5-Apr-E
OFFSET.M26	FORM 90 DEGREE EDGE ON CHEEK RADIUS FOR OFFSET	< 33>	5-Apr-E
OFFSET.M25	FORM LAPOUT ON OFFSET	< 33>	5-Apr-E
OFFSET.M24	SHEAR RADIUS ON CHEEKS FOR OFFSET	< 33>	5-Apr-E
OFFSET.M23	SHEAR SHEETMETAL FOR OFFSET	< 33>	5-Apr-E
OFFSET.M22	MARK OUT STRAIGHT SECTION FOR OFFSET	< 33>	5-Apr-E
OFFSET.M21	MARK OUT WRAPPERS FOR OFFSET	< 33>	5-Apr-E
OFFSET.M20	MARK OUT CHEEKS FOR OFFSET	< 33>	5-Apr-E
OFFSET.M09	ASSEMBLE OFFSET	< 33>	28-Mar-E
OFFSET.M08	FORM RADIUS ON WRAPPERS FOR OFFSET	< 33>	8-Jul-E
OFFSET.M07	POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET	< 33>	8-jul-E
OFFSET.M06	FORM PITTSBURGH LOCKS ON WRAPPER FOR OFFSET	< 33>	8-Jul-E
OFFSET.M05	FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET	< 33>	25-Mar-E
OFFSET.M04	SHEAR RADIUS & CORNERS FOR OFFSET	< 33>	8-Jul-E
OFFSET.M03	SHEAR SHEETMETAL FOR OFFSET	< 33>	25-Mar-E
OFFSET.M02	MARK OUT WRAPPERS FOR OFFSET	< 33>	25-Mar-E
OFFSET.M01	MARK OUT CHEEKS FOR OFFSET	< 33>	25-Mar-E
GEE .M29	ASSEMBLE CHEEKS & WRAPPERS FOR OGEE	< 33>	7-Apr-E
OGEE .M28	FORM RADIUS ON WRAPPERS FOR OGEE	< 33>	7-Apr-E
OGEE .M27	POSITION SPACERS IN PITTSBURGH LOCKS FOR OGEE	< 33>	7-Apr-E

File Name Ext	Description	Protect- ion	Created
AL .W04	TEAR DOWN ALUMINUM WELDING	< 33>	8-Jan-8
AL .wo2	ALUMINUM WELDING	< 33>	7-Jan-8
AL .W01	ALUMINUM WELDING	< 33>	7-Jan-8
BMOUTH.M39	WELD BELLMOUTH	< 33>	18-Jul-8
BMOUTH.M10	WELD BELLMOUTH	< 33>	18-Jul-8
ELBOW .M49	ASSEMBLE CHEEKS THROAT, AND HEEL FOR ELBOW	< 33>	14-Apr-8
ELBOW .M48	FORM RADIUS ON THROAT AND HEEL FOR ELBOW	< 33>	14-Apr-8
ELBOW .M47	POSITION SPACERS IN PITTSBURGH LOCKS FOR ELBOW	< 33>	14-Apr-8
ELBOW .M46	FORM PITTSBURGH LOCK ON THROAT & HEEL FOR ELBOW	< 33>	14-Apr-8
ELBOW .M45	FORM 90DEGREE EDGE ON CHEEKS FOR ELBOW	< 33>	14-Apr-8
ELBOW .M44	FORM LAP ENDS ON SHEETMETAL FOR ELBOW	< 33>	14-Apr-8
ELBOW .M43	SHEAR RADIUS ON CHEEKS FOR ELBOW	< 33>	14-Apr-8
ELBOW .M42	SHEAR SHEETMETAL FOR ELBOW	< 33>	14-Apr-8
ELBOW .M41	MARK OUT HEEL AND THROAT FOR ELBOW	< 33>	14-Apr-8
ELBOW .M40	MARK OUT CHEEKS FOR ELBOW	< 33>	14-Apr-8
ELBOW .M25	FORM RADIUS ON THROAT & HEEL FOR ELBOW	< 3 3	11-Apr-8
ELBOW .M24	SHEAR RADIUS ON CHEEKS FOR ELBOW	< 33>	12-Apr-8
ELBOW .M23	SHEAR SHEETMETAL FOR REC. ELBOW WITH VANE TURNS	< 33>	12-Apr-8
ELBOW .M22	MARK OUT TURN VANES FOR RECTANGULAR ELBOW	< 33>	11-Apr-8
ELBOW .M21	MARK OUT THROAT AND HEEL FOR ELBOW	< 33>	11-Apr-8
ELBOW .M20	MARK OUT CHEEKS FOR ELBOW WITH VANE TURNS	< 33>	11-Apr-8
ELBOW .MO9	ASSEMBLE ELBOW	< 33>	10-Mar-8
ELBOW .MO8	FORM EDGE ON ELBOW CHEEKS	< 33>	10-Mar-
ELBOW .MO7	FORM ELBOW RADIUS THROAT & HEEL	< 33>	9-Mar-8
ELBOW .MO6	FORM PITTSBURGH LOCK ON ELBOW	< 33>	9-Mar-8
ELBOW .MO5	FORM ELBOW LAP	< 33>	9-Mar-8
ELBOW .M04	SHEAR ELBOW RADIUS LINES	< 33>	9-Mar-8
ELBOW .M03	SHEAR OUTLINES OF ELBOW	< 33>	9-Mar-8
ELBOW .M02	MARK OUT ELBOW THROAT & HEEL	< 33>	9-Mar-8
ELBOW .M01	MARK OUT ELBOW (# 7) CHEEKS	< 33>	9-Mar-8
FIT .W11	ASSEMBLY AREA (EXPANDED 4-12-83)	< 33>	12-Apr-8
FIT .W10	ASSEMBLY AREA (EXPANDED 4-12-83)	< 33>	12-Apr-8
FIT .W09	SKETCH -ASSEMBLY (EXPANDED 4/6/83)	< 33>	6-Apr-8
FIT .W08	ASSEMBLY AREA (WITH 4TH EXPANSION)	< 33>	23-Mar-8
FIT .W07	ASSEMBLY AREA (WITH 3RD EXPANSION)	< 33>	22-Mar-8
FIT .W06	ASSEMBLY AREA (EXPANDED EXPANDED)	< 33>	21-Mar-8
FIT .W05	ASSEMBLY AREA (EXPANDED)	< 33>	15-Mar-8
FIT .W04	SKETCH ASSEMBLY AREA WITH SHEETMETAL-STORAGE	< 33>	17-Feb-8
FIT .W03	SKETCH ASSEMBLY AREA 3	< 33>	7-Feb-8
FIT .W02	SKETCH ASSEMBLY AREA 2	< 33>	4-Feb-8
FIT .W01	SKETCH ASSEMBLY AREA	< 33>	28-Jan-8
FLOVAL.M39	RIVET FLAT OVAL ASSEMBLY	< 33>	25-Apr-8
FLOVAL.M38	WELD FLAT OVAL	< 33>	21-Jul-8
FLOVAL.M37	TACK WELD COLLAR TO FLAT OVAL	< 33>	25-Apr-8
FLOVAL.M36	ASSEMBLE FLAT OVAL	< 33>	22-Apr-8
FLOVAL.M35	BEND RADIUS FOR FLAT OVAL	< 33>	22-Apr-8
FLOVAL.M34	FORM RADIUS ON COLLAR FOR FLAT OVAL	< 33>	14-Apr-8
FLOVAL.M33	FORM LAP ENDS FOR FLAT OVAL	< 33>	14-Apr-6
FLOVAL.M32	SHEAR RADIUS FOR FLAT OVAL	< 33>	14-Apr-8
FLOVAL.M31	SHEAR SHEETMETAL FOR FLAT OVAL	< 33>	14-Apr-
FLOVAL.M30	MARK OUT SHEETMETAL FOR FLAT OVAL	< 33>	14-Apr-8

STRGHT.M42	CUT STAINLESS SHEETMETAL FOR STRAIGHT SECTION	< 33>	27-Jul-8
STRGHT.M41	SHEAR STAINLESS SHEETMETAL FOR STRAIGHT SECTION	< 33>	27-Jul-8
STRGHT.M40	MARK OUT STAINLESS STEEL STRAIGHT SECTION	< 33>	27-Jul-8
STRGHT.M25	SEAM WELD STRAIGHT SECTION	< 33>	27-Jul-8
STRGHT.M24	BEND STRAIGHT SECTION	< 33>	22-Jul-8
STRGHT.M23	FORM LAP ENDS ON STRAIGHT SECTION	< 33>	22-Jul-8
STRGHT.M22	CUT CORNERS FOR STRAIGHT SECTION	< 33>	22-Jul-8
STRGHT.M21	SHEAR STRAIGHT SECTION	< 33>	22-Jul-8
STRGHT.M20	MARK OUT STRAIGHT SECTION	< 33>	22-Jul-8
STRGHT.M07	ASSEMBLE STRAIGHT SECTION	< 33>	30-Jun-8
STRGHT.M06	BEND SHEETMETAL FOR STRAIGHT SECTION	< 33>	30-Jun-8
STRGHT.M05	FORM PITTSBURGH FOR STRAIGHT SECTION	< 33>	30-Jun-8
STRGHT.M04	FORM LAP END FOR STRAIGHT SECTION	< 33>	30-Jun-8
STRGHT.M03	CUT CORNERS ON SHEETMETAL FOR STRAIGHT SECTION	< 33>	30-Jun-8
STRGHT.M02	SHEAR SHEETMETAL FOR STRAIGHT SECTION	< 33>	30-Jun-8
STRGHT.M01	MARK OUT SHEETMETAL FOR STRAIGHT SECTION	< 33>	25-Jul-8
TRANSF.M28	ASSEMBLE TRANSFORMER	< 33>	29-Jun-8
TRANSF.M27	BEND SHEETMETAL LAP ENDS FOR TRANSFORMER	< 33>	29-Jun-8
TRANSF.M26	BEND SHEETMETAL FOR TRANSFR	< 33>	29-Jun-8
TRANSF.M25	FORM PITTSBURGH LOCK FOR TRANSFORMER	< 33>	29-Jun-8
TRANSF.M24	FORM LAP END ON TRANSFORMER	< 33>	29-Jun-8
TRANSF.M23	SHEAR UNEVEN END OF TRANSFORMER	< 33>	29-Jun-8
TRANSF.M22	SHEAR SHEETMETAL FOR TRANSFORMER	< 33>	29-Jun-8
TRANSF.M21	MARK OUT TOP FOR TRANSFORMER	< 33>	29-Jun-8
TRANSF.M20	MARK OUT SHEETMETAL FOR TRANSFORMER	< 33>	29-Jun-8
TRANSF.M06	WELD TRANSFORMER	< 33>	19-Jul-8
TRANSF.M05	BEND SHEETMETAL FOR TRANSFORMER	< 33>	23-Jun-8
TRANSF.M04	CUT SHEETMETAL FOR TRANSFORMER	< 33>	23-Jun-8
TRANSF.M03	SHEAR SHEETMETAL FOR TRANSFORMER	< 33>	23-Jun-8
TRANSF.M02	MARK OUT SHEETMETAL TOP FOR TRANSFORMER	< 33>	23-Jun-8
TRANSF.M01	MARK OUT SHEETMETAL FOR TRANSFORMER	< 33>	23-Jun-8
NELBO.M30	WELD ELBOW WITH VANE TRACK	< 33>	22-Jul-8
NELBO.M17	WELD ELBOW WITH VANE TRACK	< 33>	22-Jul-8
WELD .W01	SHEETMETAL SHOP WELDING BOOTH	< 33>	19-Jul-8

Operation (DE, PD, CP, PM, AA, DA, AP, H, or EX) ?

MOST directory for(39, 101)

File Name Ext	Description	Protect- ion	Created
BMOUTH.M40	ASSEMBLE BELLMOUTH	< 3 3 >	29-Jun-8
BMOUTH.M38	TACK WELD SHEETMETAL BELLMOUTH	<33>	29-JUN-8
BMOUTH.M37	SPOT WELD SCREEN ASSEMBLY FOR BELLMOUTH	< 3 3 >	29-Jun-8
BMOUTH.M36	BEND SHEETMETAL FOR BELLMOUTH	< 3 3 >	29-Jun-8
BMOUTH.M35	FORM RADIUS FOR BELLMOUTH	< 3 3 >	29-Jun-8
BMOUTH.M34	SHEAR SHEETMETAL RADIUS FOR BELLMOUTH	<33>	29-JUN-8
BMOUTH.M33	SHEAR SHEETMETAL FOR BELLMOUTH	<33>	28-Jun-8
BMOUTH.M32	MARK OUT SCREEN,FRAME FOR BELLMOUTH	<33>	28-Jun-8
BMOUTH.M31	MARK OUT 2X2 WIRE MESH FOR BELLMOUTH	< 3 3 >	28-Jun-8
BMOUTH.M30	MARK OUT SHEETMETAL FOR BELLMOUTH	<33>	28-Jun-8
BMOUTH.M11	ASSEMBLE BELLMOUTH	<33>	28-Jun-8
BMOUTH.M09	TACK WELD SHEETMETAL BELLMOUTH	<33>	28-Jun-8
BMOUTH.M08	SPOT WELD SCREEN ASSEMBLY FOR BELLMOUTH	< 3 3 >	28-Jun-8
BMOUTH.M07	BEND SHEETMETAL FOR BELLMOUTH	<33>	28-Jun-8
BMOUTH.M06	FORM RADIUS FOR BELLMOUTH	<33>	28-Jun-8
BMOUTH.M05	SHEAR SHEETMETAL RADIUS FOR BELLMOUTH	< 3 3 >	28-Jun-8
BMOUTH.M04	SHEAR SHEETMETAL FOR BELLMOUTH	<33>	28-Jun-8
BMOUTH.M03	MARK OUT SCREEN FRAME FOR BELLMOH	<33>	28-JUN-8
BMOUTH.M02	MARK OUT 2X2 WIRE MESH FOR BELLMOUTH	<33>	24-JUN-8
BMOUTH.M01	MARK OUT SHEETMETAL FOR BELLMOUTH	<33>	24-Jun-8
BRACKT.M23	RIVET BRACKET TO VENT DUCT	<33>	6-Jul-8
BRACKT.M22	BEND SHEETMETAL FOR BRACKET	<33>	23-JUN-
BRACKT.M21	SHEAR SHEETMETAL FOR VENT DUCT	<33>	23-JUN-
BRACKT.M20	MARK OUT SHEETMETAL FOR BRACKET	<33>	23-JUN-8
BRACKT.M04	RIVET BRACKET TO VENT DUCT	< 3 3 >	24-JUN-8
BRACKT.M03	BEND SHEETMETAL UP 90 DEGREES	<33>	23-JUN-8
BRACKT.M02	SHEAR SHEETMETAL FOR BRACKET	<33>	23-JUN-8
BRACKT.M01	MARK OUT SHEETMETAL FOR BRACKET	<33>	23-Jun-8
ELBOW .M26	WELD RECTANGULAR ELBOW	<33>	20-Jul-8
FIT .W14	FIT AREA WITH SECOND SEAM WELDER EXPANSION	< 3 3 >	27-Jul-8
FIT .W13	FIT AREA WITH SEAM WELDER EXPANSION	<33>	22-JUL-8
FIT .W12	ASSEMBLY AREA (LAST EXPANSION BEFORE S.W.)	<33>	23-JUN-8
FIT .w11	ASSEMBLY AREA (EXPANDED 4-12-83)	< 3 3 >	9-JUN-8
FLANGE.M10	RIVET FLANGE TO VENT DUCT (TEMPORARILY)	< 3 3 >	28-JUN-8
FLANGE.M01	RIVET FLANGE TO VENT DUC (TEMPORARILY)	< 3 3 >	28-Jun-8
FO2RC.M55	WELD FLAT OVAL TO RADIUS CORNERS	< 3 3 >	21-Jul-8
F02SQC.M55	WELD SQUARE TO FLAT OVAL	< 3 3 >	22-JUL-8
OFFSET.M95	WELD RECTANGULAR OFFSET	< 3 3 >	20-Jul-8
OFFSET.M06	WELD OFFSET	< 3 3 >	21-Jul-8
OGEE .M08	WELD OGEE OFFSET	< 3 3 >	21-Jul-8
OSQ2RN.M72	WELD OFFSET SQUARE TO ROUND	< 3 3 >	19-Jul-8
RCT2RC.M55	WELD RECTANGULAR TO RADIUS CORNERS	< 3 3 >	20-JUL-8
R02RO.M44	WELD ROUND TO ROUND	< 3 3 >	20-Jul-8
SQ2RND.M55	WELD SQUARE TO ROUND	<33>	21-Jul-8
SQ2RND.M37	WELD SQUARE TO ROUND	<33>	20-JUL-8
SQ2RND.M09	WELD SQUARE TO ROUND	<33>	20-Jul-8
STRGHT.M94	WELD STRAIGHT SECTION	<33>	19-Jul-8
STRGHT.M84	WELD STRAIGHT SECTION	< 3 3 >	21-JUL-8
STRGHT.M45	WELD STAINLESS STEEL STRAIGHT SECTION	< 3 3 >	27-JUL-
STRGHT.M44	BEND STAINLESS STEEL FOR STRAIGHT SECTION	<33>	27-JUL
STRGHT.M43	FORM LAPENDS FOR STRAIGHT SECTION	< 3 3 >	27-JUL-8

TRANSF.M82	CUT SHEETMETAL FOR OFFSET TRANSFORR	< 3 3 >	6-JUL-8
TRANSF.M81	SHEAR SHEETMETAL FOR OFFSET TRANSFORMER	< 3 3 >	6-Jul-8
TRANSF.M80	MARK OUT SHEETMETAL FOR OFFSET TRANSFORMER	< 3 3 >	20-Mar-8
TRANSF.M73	BEND SHEETMETAL FOR OFFSET TRANSFORMER	< 3 3 >	19-MAY-8
TRANSF.M72	CUT SHEETMETAL FOR OFFSET TRANSFORMER	< 3 3 >	19-May-8
TRANSF.M71	SHEAR SHEETMETAL FOR OFFSET TRANSFORMER	< 3 3 >	19-May-8
TRANSF.M70	MARK OUT TRANSFORMER	< 3 3 >	18-May-8
TRANSF.M53	BEND SHEETMETAL FOR TRANSFORMER	< 3 3 >	18-MAY-8
TRANSF.M52	CUT SHEETMETAL FOR TRANSFORMER	< 3 3 >	26-Jul-8
TRANSF.M51	SHEAR SHEETMETAL FOR TRANSFORMER	< 3 3 >	26-Jul-8
TRANSF.M50	MARK OUT TRANSFORMER	< 3 3 >	26-JUL-8
TRANSF.M47	ASSEMBLE TRANSFORMER	< 3 3 >	7-JUL-8
TRANSF.M46	BEND SHEETMETAL FOR TRANSFORMER	< 3 3 >	7-Jul-8
TRANSF.M45	BEND SHEETMETAL FOR TRANSFORMER	< 3 3 >	7-Jul-8
TRANSF.M44	FORM PITTSBURGH LOCK FOR TRANSFORMER	< 3 3 >	6-Jul-8
TRANSF.M43	FORM LAP ENDS FOR RECT. TO RECT. TRANSFORMER	< 3 3 >	7-JUL-8
TRANSF.M42	CUT CORNERS FOR RECT. TO RECT. TRANSFORMER	< 3 3 >	6-Jul-8
TRANSF.M41	SHEAR SHEETMETAL FOR RECT. TO RECT. TRANSFORMER	< 3 3 >	6-Jul-8
TRANSF.M40	MARK OUT RECTANGULAR TO RECTANGULAR TRANSFORMER	< 3 3 >	18-MAY-8
TRANSF.M37	ASSEMBLE TRANSFORMER	< 3 3 >	18-MAY-8
TRANSF.M36	BEND LAP ENDS FOR TRANSFORMER	< 3 3 >	12-JUL-8
TRANSF.M35	BEND SHEETMETAL FOR TRANSFORMER	< 3 3 >	11-Jul-8
TRANSF.M34	FORM PITTSBURGH LOCK FOR TRANSFORMER	< 3 3 >	11-Jul-8
TRANSF.M33	FORM LAP ENDS FOR TRANSFORMER	< 3 3 >	18-MAY-8
TRANSF.M32	CUT CORNERS FOR TRANSFORMER	< 3 3 >	11-Jul-8
TRANSF.M31	SHEAR SHEETMETAL FOR TRANSFORMER	< 3 3 >	18-MAY-8
TRANSF.M30	MARK OUT TRANSFORMER	< 3 3 >	18-MAY-8

Operation (DE, PD, CP, H, or EX) ?

RODUCT.M33	FORM LAP SEAM ON ROUND DUCT	< 33>	31-May-83
RODUCT.M32	CUT CORNERS FOR ROUND DUCT	< 33>	31-May-83
RODUCT.M31	SHEAR SHEETMETAL FOR ROUND DUCT SECTION	< 33>	31-May-83
RODUCT.M30	MARK OUT ROUND DUCT SECTION	< 33>	31-May-83
RODUCT.M25	RIVET ROUND DUCT SECTION	< 33>	1-Jun-8
RODUCT.M24	FORM ROUND DIAMETER FOR ROUND DUCT	< 33>	1-Jun-
RODUCT.M23	FORM LAP SEAM ON ROUND DUCT	< 33>	31-May-83
RODUCT.M22	CUT CORNERS FOR ROUND DUCT	< 33>	31-May-83
RODUCT.M21	SHEAR SHEETMETAL FOR ROUND DUCT	< 33>	31-Mar-83
RODUCT.M20	MARK OUT ROUND DUCT SECTION	< 33>	31-May-83
RODUCT.M15	RIVET ROUND DUCT SECTION	< 33>	31-May-83
RODUCT.M14	FORM ROUND DIAMETER FOR ROUND DUCT	< 33>	31-May-83
RODUCT.M13	FORM LAP SEAM ON ROUND DUCT	< 33>	31-May-83
RODUCT.M12	CUT CORNERS FOR ROUND DUCT SECTION	< 33>	31-Mar-83
RODUCT.M11	SHEAR SHEETMETAL FOR ROUND DUCT SECTION	< 33>	31-Mar-83
RODUCT.M10	MARK OUT ROUND DUCT SECTION	< 33>	31-May-83
RODUCT.M06	RIVET ROUND DUCT SECTION	< 33>	1-Jun-83
RODUCT.M05	FORM ROUND DIAMETER FOR ROUND DUCT	< 33>	1-Jun-83
RODUCT.M04	FORM LAP SEAM ON ROUND DUCT	< 33>	1-Jun-83
RODUCT.M03	CUT CORNERS FOR ROUND DUCT	< 33>	1-Jun-83
RODUCT.M02	SHEAR SHEETMETAL FOR ROUND DUCT	< 33>	1-Jun-83
RODUCT.M01	MARK OUT ROUND DUCT	< 33>	1-Jun-83
RVTJNT.M02	RIVET SHEETMETAL JOINT	< 33>	16-May-83
RVTJNT.M01	RIVET SHEETMETAL JOINT	< 33>	16-May-83
SQ2RND.M54	FORM COLLAR FOR SQUARE TO ROUND	< 33>	25-Mar-83
SQ2RND.M53	BEND RADIUS FOR SQUARE TO ROUND	< 33>	25-May-83
SQ2RND.M52	CUT RADIUS FOR SQUARE TO ROUND	< 33>	25-Mar-8
SQ2RND.M51	SHEAR SHEETMETAL FOR SQUARE TO ROUND	< 33>	25-Mar-8
SQ2RND.M50	MARK OUT SHEETMETAL FOR SQUARE TO ROUND	< 33>	25-Mar-8
STRGHT.M93	BEND SHEETMETAL FOR STRAIGHT SECTION	< 33>	24-May-8
STRGHT.M92	CUT SHEETMETAL FOR STRAIGHT SECTION	< 33>	24-May-8
STRGHT.M91	SHEAR SHEETMETAL FOR STRAIGHT SECTION	< 33>	24-May-
STRGHT.M90	MARK OUT SHEETMETAL FOR STRAIGHT SECTION	< 33>	24-MAY-83
STRGHT.M83	BEND SHEETMETAL FOR STRAIGHT SECTION	< 33>	24-May-8
STRGHT.M82	CUT SHEETMETAL FOR STRAIGHT SECTION	< 33>	24-May-8
STRGHT.M81	SHEAR SHEETMETAL FOR STRAIGHT SECTION	< 33>	24-May-8
STRGHT.M80	MARK OUT SHEETMETAL FOR STRAIGHT SECTION	< 33>	24-May-8
STRGHT.M73	BEND SHEETMETAL FOR STRAIGHT SECTION	< 33>	24-May-8
STRGHT.M72	CUT CORNERS FOR STRAIGHT SECTION	< 33>	8-Jul-8
STRGHT.M71	SHEAR SHEETMETAL FOR STRAIGHT SECTION	< 33>	8-Jul-8
STRGHT.M70	MARK OUT STRAIGHT SECTION	< 33>	24-May-8
STRGHT.M66	ASSEMBLE STRAIGHT SECTION	< 33>	16-May-8
STRGHT.M65	BEND SHEETMETAL FOR STRAIGHT SECTION	< 33>	16-May-8
STRGHT.M64	FORM PITTSBURGH ON STRAIGHT SECTION	< 33>	7-Jul-8
STRGHT.M63	FORM LAP ENDS FOR STRAIGHT SECTION	< 33>	16-May-8
STRGHT.M62	CUT SHEETMETAL FOR STRAIGHT SECTION	< 33>	16-May-8
STRGHT.M61	SHEAR SHEETMETAL FOR STRAIGHT SECTION	< 33>	16-May-8
STRGHT.M60	MARK OUT SHEETMETAL FOR STRAIGHT SECTION	< 33>	16-May-8
STRGHT.M56	ASSEMBLE STRAIGHT SECTION	< 33>	21-Jul-8
STRGHT.M55	BEND SHEETMETAL FOR STRAIGHT SECTION	< 33>	13-May-8
STRGHT.M54	FORM PITTSBURGH, ON STRAIGHT SECTION	< 33>	13-May-8
STRGHT.M53	FORM LAP END ON STRAIGHT SECTION	< 33>	13-May-8
STRGHT.M52	CUT SHEETMETAL FOR STRAIGHT SECTION	< 33>	13-May-8
STRGHT.M51	SHEAR SHEETMETAL FOR STRAIGHT SECTION	< 33>	13-May-8
STRGHT.M50	MARK OUT SHEETMETAL FOR STRAIGHT SECTION	< 33>	13-May-8
TRANSF.M87	ASSEMBLE OFFSET TRANSFORMER	< 33>	6-Jul-8
TRANSF.M86	BEND LAP ENDS FOR OFFSET TRANSFORMER	< 33>	7-Jul-8
TRANSF.M85	BEND SHEETMETAL FOR OFFSET TRANSFORMER	< 33>	6-Jul-8
TRANSF.M84	FORM PITTSBURGH LOCK FOR OFFSET TRANSFORMER	< 33>	20-May-8
TRANSF.M83	FORM LAP ENDS FOR OFFSET TRANSFORMER	< 33>	6-Jul-

OSQ2RN.M70	MARK OUT SQUARE TO ROUND WITH OFFSET	< 33>	25-May-8
OSQ2RN.M30	RIVET SQUARE TO ROUND OFF CENTER	< 33>	12-May-8
OSQ2RN.M28	TACK WELD COLLAR TO SQUARE, TO ROUND OFF CENTER	< 33>	12-May-8
OSQ2RN.M27	ASSEMBLE SQUARE TO ROUND OFF CENTER	< 33>	12-May-8
OSQ2RN.M26	BEND LAP ENDS FOR SQUARE TO ROUND OFF CENTER	< 33>	12-May-8
OSQ2RN.M25	BEND RADIUS FOR SQUARE TO ROUND OFF CENTER	< 33>	12-May-8
SQ2RN.M24	FORM COLLAR FOR SQUARE TO ROUND OFF CENTER	< 33>	12-May-8
OSQ2RN.M23	FORM LAP ENDS ON SQUARE TO ROUND OFF CENTER	< 33>	11-May-8
OSQ2RN.M22	SHEAR RADIUS FOR SQUARE TO ROUND OFF CENTER	< 33>	11-May-8
OSQ2RN.M21	SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER	< 33>	11-May-8
OSQ2RN.M20	MARK OUT SHEETMETAL FOR SQUARE TO ROUND OFF CENTER	< 33>	11-May-8
RCT2RC.M54	FORM RADIUS FOR COLLAR FOR RECT TO RADIUS CORNER	< 33>	18-May-8
RCT2RC.M53	BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS	< 33>	17-May-8
RCT2RC.M52	CUT RADIUS FOR RECTANGULAR TO RADIUS CORNERS	< 33>	17-May-8
RCT2RC.M51	SHEAR SHEETMETAL FOR RECTANGULAR -TO RADIUS CORNERS	< 33>	17-May-8
RCT2RC.M50	MARK OUT RECTANGULAR TO RADIUS CORNERS	< 33>	17-May-8
RCT2RC.M40	RIVET RECTANGULAR TO RADIUS CORNERS	< 33>	17-May-8
RCT2RC.M38	TACK RADIUS CORNERS ON RECT. TO RADIUS CORNERS	< 33>	17-May-8
RCT2RC.M37	ASSEMBLE RECTANGULAR TO RADIUS CORNERS	< 33>	17-May-8
RCT2RC.M36	BEND LAP ENDS FOR RECTANGULAR TO RADIUS CORNERS	< 33>	17-May-8
RCT2RC.M35	FORM RADIUS ON COLLARS FOR RECT. TO RADIUS CORNERS	< 33>	17-May-8
RCT2RC.M34	BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS	< 33>	17-May-8
RCT2RC.M33	FORM LAP ENDS ON RECTANGULAR TO RADIUS CORNERS	< 33>	17-May-8
RCT2RC.M32	SHEAR RADIUS FOR RECTANGULAR TO RADIUS CORNERS	< 33>	17-May-8
RCT2RC.M31	SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS	< 33>	17-May-8
RCT2RC.M30	MARK OUT RECTANGULAR TO RADIUS CORNERS	< 33>	17-May-8
RCT2RC.M11	RIVET RECTANGULAR TO RADIUS CORNERS	< 33>	13-May-8
RCT2RC.M09	TACK RADIUS CORNERS ON RECT. TO RADIUS, CORNERS	< 33>	13-May-8
RCT2RC.M08	ASSEMBLE RECTANGULAR TO RADIUS CORNERS	< 33>	13-May-8
RCT2RC.M07	BEND LAP ENDS FOR RECTANGULAR TO RADIUS CORNERS	< 33>	13-May-8
RCT2RC.M06	FORM RADIUS FOR RECTANGULAR, TO RADIUS CORNERS	< 33>	13-May-8
RCT2RC.M05	BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS	< 33>	13-May-8
RCT2RC.M04	FORM LAP ND ON RECTANGULAR TO RADIUS CORNERS	< 33>	13-May-8
RCT2RC.M03	SHEAR RADIUS FOR RECTANGULAR TO RADIUS CORNERS	< 33>	13-May-8
RCT2RC.M02	SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS	< 33>	13-May-8
RCT2RC.M01	MARK OUT SHEETMETAL FOR RECT., TO RADIUS CORNERS	< 33>	12-May-8
R02RC.M03	SHEAR RADIUS FLAT OVAL TO RADIUS CORNERS	< 33>	1-JUL-8
R02RO.M43	FORM RADIUS FOR ROUND TO ROUND TRANSITION	< 33>	26-May-8
R02RO.M42	CUT RADIUS FOR ROUND TO ROUND TRANSITION	< 33>	26-May-8
R02RO.M41	SHEAR SHEETMETAL FOR ROUND TO ROUND TRANSITION	< 33>	26-May-8
R02RO.M40	MARK OUT DUND TO ROUND TRANSITION	< 33>	26-May-8
R02RO.M24	TACK ROUNI TO ROUND TRANSITION	< 33>	26-May-8
R02RO.M23	FORM RADIS FOR ROUND TO ROUND TRANSITION	< 33>	26-May-8
R02RO.M22	CUT RADIUS FOR ROUND TO ROUND TRANSITION	< 33>	26-May-8
R02RO.M21	SHEAR SHEETMETAL FOR ROUND TO ROUND, TRANSITION	< 33>	26-May-8
R02RO.M20	MARK OUT DUND TO ROUND TRANSITION	< 33>	26-May-8
RODUCT.M55	RIVET ROUD DUCT SECTION	< 33>	26-Jul-8
RODUCT.M54	FORM ROUNI DIAMETER FOR ROUND DUCT	< 33>	1-Jun-8
RODUCT.M53	FORM LAP EAN ON ROUND DUCT	< 33>	1-Jun-8
RODUCT.M52	CUT CORNES FOR ROUND DUCT	< 33>	1-Jun-8
RODUCT.M51	SHEAR SHETMETAL FOR ROUND DUCT;	< 33>	1-Jun-8
RODUCT.M50	MARK OUT DUND DUCT SECTION	< 33>	1-Jun-8
RODUCT.M45	RIVET ROUD DUCT SECTION	< 33>	1-Jun-8
RODUCT.M44	FORM ROUN DIAMETER FOR ROUND DUCT	< 33>	1-Jun-8
RODUCT.M43	FORM LAP EAM ON ROUND DUCT	< 33>	1-Jun-8
RODUCT.M42	CUT CORNES FOR ROUND DUCT	< 33>	1-Jun-8
RODUCT.M41	SHEAR SHETMETAL FOR ROUND	< 33>	1-Jun-8
RODUCT.M40	MARK OUT FOUND DUCT	< 33>	26-JUL-8
RODUCT.M35	RIVET ROUD IUCT SECTION	< 33>	31-May-8
RODUCT.M34	FORM ROUN DIAMETER FORUCT	< 33>	31-May-8

F02RC .M02 SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS	< 33>	5-May-8
F02RC .M01 MARK OUT FLAT OVAL TO RADIUS CORNERS	< 33>	5-May-8
F02SQC .M54 FORM COLLAR FOR FLAT OVAL TO SQUARE CORNERS	< 33>	24-May-8
F02SQC .M53 BEND RADIUS FOR FLAT OVAL TO SQUARE CORNERS	< 33>	24-May-8
F02SQC .M52 CUT RADIUS FOR FLAT OVAL TO SQUARE CORNERS	< 33>	24-May-
F02SQC .M51 SHEAR SHEETMETAL FOR FLAT OVAL TO SQUARE CORNERS	< 33>	24-May-
F02SQC .M50 MARK OUT FLAT OVAL TO SQUARE CORNER	< 33>	24-May-8
GELBOW .M24 ASSEMBLE 5 GORED ELBOW	< 33>	24-May-8
GELBOW .M23 FORM SHEETMETAL FOR 5 GORED ELBOW	< 33>	24-May-8
GELBOW .M22 SHEAR SHEETMETAL FOR 5 GORED ELBOW	< 33>	23-May-8
GELBOW .M21 SHEAR SHEETMETAL FOR 5 GORED ELBOW	< 33>	23-May-8
GELBOW .M20 MARK OUT 5 GORED ELBOW	< 33>	23-May-8
OFFSET .M94 FORM RADIISES ON WRAPPERS FOR OFFSET	< 33>	26-May-8
OFFSET .M93 CUT RADIISES AND CORNERS FOR OFFSET	< 33>	26-May-8
OFFSET .M92 SHEAR CHEEKS AND WRAPPERS FOR OFFSET	< 33>	26-May-8
OFFSET .M91 MARK OUT WRAPPERS FOR OFFSET	< 33>	26-May-8
OFFSET .M90 MARK OUT CHEEKS FOR OFFSET	< 33>	26-May-8
OFFSET .M89 ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET	< 33>	11-May-8
OFFSET .M88 FORM RADIUS ON WRAPPERS FOR OFFSET	< 33>	8-Jul-8
OFFSET .M87 POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET	< 33>	11-May-8
OFFSET .M86 FORM PITTSBURGH LOCKS FOR OFFSET	< 33>	8-Jul-8
OFFSET .M85 FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET	< 33>	11-May-8
OFFSET .M84 FORM LAP ENDS FOR OFFSET	< 33>	11-May-8
OFFSET .M83 SHEAR CHEETK RADIUS FOR OFFSET	< 33>	8-Jul-8
OFFSET .M82 SHEAR SHEETMETAL FOR OFFSET	< 33>	11-May-8
OFFSET .M81 MARK OUT WRAPPERS FOR OFFSET	< 33>	11-May-8
OFFSET .M80 MARK OUT CHEEKS FOR OFFSET	< 33>	11-May-8
OFFSET .M69 ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET	< 33>	10-May-8
OFFSET .M68 FORM RADIUS ON WRAPPERS FOR OFFSET	< 33>	10-May-8
OFFSET .M67 POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET	< 33>	10-May-8
OFFSET .M66 FORM PITTSBURGH LOCK ON WRAPPERS FOR OFFSET	< 33>	10-May-
OFFSET .M65 FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET	< 33>	8-Jul-
OFFSET .M64 FORM LAP ENDS ON CHEEKS AND WRAPPERS FOR OFFSET	< 33>	10-May-8
OFFSET .M63 SHEAR RADIUS ON CHEEKS FOR OFFSET	< 33>	10-May-8
OFFSET .M62 SHEAR SHEETMETAL FOR OFFSET	< 33>	10-May-8
OFFSET .M61 MARK OUT WRAPPERS FOR OFFSET	< 33>	10-May-8
OFFSET .M60 MARK OUT CHEEKS FOR OFFSET	< 33>	10-May-8
OFFSET .M05 FORM RADIUS ON WRAPPERS FOR OFFSET	< 33>	26-May-8
OFFSET .M04 CUT RADIUS ON CHEEKS FOR OFFSET	< 33>	26-May-8
OFFSET .M03 SHEAR SHEETMETAL FOR OFFSET	< 33>	26-May-8
OFFSET .M02 MARK OUT WRAPPERS FOR OFFSET	< 33>	26-May-8
OFFSET .M01 MARK OUR CHEEKS FOR RECTANGULAR OFFSET	< 33>	26-May-8
OGEE .M49 ASSEMBLE CHEEKS AND WRAPPERS FOR OGEE	< 33>	12-May-8
OGEE .M48 FORM RADIUS ON WRAPPERS FOR OGEE	< 33>	12-May-8
OGEE .M47 POSITION SPACERS IN PITTSBURGH LOCKS FOR OGEE	< 33>	12-May-8
OGEE .M46 FORM PITTSBURGH LOCKS FOR OGEE	< 33>	12-May-8
OGEE .M45 FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE	< 33>	12-May-8
OGEE .M44 FORM LAP ENDS FOR OGEE	< 33>	12-May-8
OGEE .M43 SHEAR RADIUS ON CHEEKS FOR OGEE	< 33>	12-May-8
OGEE .M42 SHEAR SHEETMETALIA		

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< 3>

12-May-83

OGEE .M41 MARK OUT WRAPPERS FOR OGEE	< 33>	12-May-8
OGEE .M40 MARK OUT CHEEKS FOR OGEE	< 33>	12-May-8
OSQ2RN .M74 FORM COLLAR FOR SQUARE TO ROUND OFF CENTER	< 33>	25-May-8
OSQ2RN .M73 BEND RADIUS FOR SQUARE TO ROUND OFF CENTER	< 33>	25-May-
OSQ2RN .M72 CUT RADIUS FOR SQUARE TO ROUND OFF CENTER	< 33>	25-May-
OSQ2RN&M71 SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER	< 33>	25-May-8